Emotion Labour, Emotion Work and Occupational Strain in Nurses

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ABSTRACT

Concerns about the psychological health of South Australian hospital nurses have been raised on account of nursing shortages, retention difficulties, and the associated resource constraints on the existing pool of nursing staff. According to workers compensation statistics, the nursing profession is prominent with respect to occupational stress claims, resulting in substantial costs for both the individuals and organisations concerned. This thesis addresses the question of if, and how, emotion labour and emotion work influence job stress and strain and job satisfaction in nurses.

In a first study, 238 nurses (35 males) employed at a large public hospital completed a questionnaire comprising predictive measures addressing individual factors, workload and work environment, and outcome measures focussing on health, job strain and satisfaction, impressions of organisational commitment and intention to leave. The relationships of emotion labour and emotion work with the outcomes were assessed with regard to demographics, individual differences, workload and work environment factors.

The association of emotion labour performance with individual differences, workload and work environment factors, as well as health and organisational outcomes, differed from that of emotion work. Performance of emotion labour associated more strongly with negative health outcomes when compared with emotion work performance, and can be likened to a demand, whereas emotion work performance, particularly in the form of companionship, was associated with a reduction in negative affect, and can be likened to a resource for nurses.

To extend these findings, a second study explored similar variables, as well as autonomy, in 176 nurses (8 males) working at private hospitals. The questionnaire package used in the first study was refined and vignettes were included in order to further explore the emotion labour and work concepts via qualitative analysis. In general, the findings from this study were consistent with those from the first study. However, emotion work in the form of companionship was negatively related to patient-related burnout once emotion work performance was restricted to the

workplace. The factor structure of emotional exhaustion, measured by the Copenhagen Burnout Inventory was also confirmed.

As a final element of the research, the views and perspectives about occupational strain and its management and prevention, from eight work-based consultants (Employee Assistance Providers) were investigated using a structured interview format. This led to a greater understanding of how their knowledge of occupational stress in nursing staff might be applied in the refinement of management policies, as well as what individual, team and organisational interventions are currently used for managing occupational stress in hospital nurses.

The research demonstrates the importance of emotion variables in the prediction of job well being and satisfaction. The Conservation of Resources Theory, along with the UK Health and Safety Executive Stress Management Standards, are consistent with the empirical findings and are judged to be useful for the design of policies and interventions aimed at improving job health, satisfaction and retention.

It is recommended that emotion work and labour be factored into organisational level stress management interventions and that psychological health practitioners be involved with the evaluation of the intervention implementation and outcome.

STATEMENT

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due reference has been made in the text.

I give my consent to this copy of my thesis, when deposited in the University Library, to be available for loan and photocopying.

Signed _____ Date: January 2010

Sandra Louise Pisaniello

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OVERVIEW

Contemporary demands on the nursing profession, including increased workload and less time for bedside care, are thought to have contributed to the current problems in workforce recruitment and retention, as well as to broader economic and human effects. An increasing body of evidence suggests that the emotional dimension to work may be an important predictor of job satisfaction and retention, in addition to evidence that suggests negative health and organisational outcomes are predicted by the feigning or hiding of emotions. This research examines if and how emotion labour (the feigning positive emotions or suppressing negative emotions for the benefit of the organisation) and emotion work (the expression of companionship, help and regulation behaviours for the benefit of patients) influences job stress and strain and job satisfaction in acute care hospital nurses. This thesis seeks to contribute to knowledge in organisational psychology in four areas. First, an overarching aim is to identify and evaluate the risk factors for occupational stress and strain as well as the psychological resources available to the South Australian nurses working within hospital settings. The Conservation of Resources Theory will be applied to the findings. A second aim of the research is to examine and compare the relatively novel constructs of emotion labour and emotion work, and to study their contribution to individual health and organisational outcomes among the South Australian nursing workforce in light of other individual difference and work environment factors. Third, the positive and negative influence of work and home contexts on both individual and organisational outcomes will be considered. Finally, this research seeks to investigate individual, group and organisational level interventions currently available to South Australian hospital nurses within employee assistance programs.

This research is novel in that it is the first comparison of the emotion labour and emotion work constructs among (South Australian) hospital nursing staff from both public and private sectors. Both quantitative and qualitative methodologies will be used (with triangulation) to explore the amount and type of emotional expression typically performed by hospital nursing staff, and to compare the predictive power of emotion labour and emotion work performance, respectively.

The first chapter discusses occupational strain and workforce issues associated with the work stress problem among the study population of nurses. The second chapter identifies and evaluates theoretical models relevant to the healthcare professions, including the Demand Control Support Model (DCS), Cognitive Phenemological Theory, Burnout Theory, Person-Environment Fit Theory and the Conservation of Resources Theory (COR). On the basis of the research questions, as well as the relevance of the COR theory to the nursing profession, the COR theory was identified as the most useful to guide analyses and interpretation of findings throughout this project. The first, second and third chapters evaluate the relevant organisational psychology literature regarding occupational stress and the factors that influence work stress among employees generally, as well as in nurses. The emotional dimension within COR theory has received little attention in the occupational health psychology literature. There is a need to assess empirically the relationship between emotion-related variables and health and organisational outcomes. The aims and purpose of each research project are described in chapters three, five and seven.

Chapters 3 and 4, respectively, describe the background and methodology, then results and interpretation, of the first study of 238 public hospital nurses. The survey instrument comprised 14 standardised scales, including demographics, trait anxiety, work to family and family to work conflict and positive spillover, emotion labour and emotion work, and outcome variables stress, burnout, affective commitment and job satisfaction. The impact of emotion labour and emotion work on the outcomes was tested in light of the demographic, individual difference, workload and work environment factors measured. The findings indicated that performance of emotion labour was associated more strongly with negative health outcomes than did emotion work performance. Emotion labour mediated and moderated relationships between individual difference, workload and work environment factors and negative consequences, whereas emotion work in the forms of companionship and regulation mediated and moderated relationships between individual difference, workload and work environment factors and both positive outcomes and reduction in negative outcomes. A structural equation model showed that increased inauthentic expression of positive emotion leads to increased suppression of negative emotion. Surface acting

(an emotion labour strategy), found to not be associated with emotion work, mediated the relationship between negative emotion suppression and work-related burnout. Emotional consonance (related to authentic emotional expression) on the other hand, mediated the relationship between emotion work in the form of companionship and job satisfaction, as well as the relationship between feigned positive emotion expression and job satisfaction. Lastly, nurses working in specialty areas with a high performance of companionship experienced less burnout and more job satisfaction than areas where suppression of negative emotion was more common.

To replicate and extend these findings, the second study explored similar variables in 176 nurses working at private sector hospitals, with the addition of variables autonomy and intention to leave. Chapters 5 and 6, respectively, describe the background and methods, then results and interpretation, of the second study. The questionnaire package used in the first study was refined, and vignettes were included in order to explore whether and under what circumstances emotion labour (in the form of feigned emotion expression and negative emotion suppression) and emotion work (in the form of companionship and regulation) is performed when patients and nurse managers are interaction partners. Trends in the second study confirmed the findings of the first study. However, compared with the first study, a direct, negative association between emotion work performance and patient-related burnout was found. The factor structure of emotional exhaustion in the Copenhagen Burnout Inventory (CBI) was tested and confirmed in the second study.

Qualitative findings revealed more emotion labour performance than emotion work performance among the private-sector sample. Sources of skill acquisition were life experiences or role models rather than training. Learned strategies adopted by nurses to manage their emotions on the job in light of time constraints or understaffing included emotional blocking, avoidance, and emotional suppression. Despite constant demands, nurses may persevere and ascribe high importance to the nurse-patient relationship on an emotional level. Satisfaction may accrue from providing emotional care to patients, whereas exhaustion and frustration may result from the provision of limited patient care, because routine physical or cognitive task-orientated care may be given higher priority. Nurses also reported that they were less likely to be absent or exit a department if nurse managers were willing to develop healthy communication

styles, compromise with nursing staff to reach a solution, and demonstrated competence in their leadership. Emotion work was rarely performed whilst communicating with managers in the majority of situations described. A conclusion from both of these studies is the distinctiveness of emotion labour and emotion work constructs, with the former acting like stressors and the latter as resources.

A mixed methods approach was used to gauge the relative importance of dispositional and psychosocial factors on health and organisational outcomes. As a final component, the research project sought the views about occupational strain and its management and prevention, from 8 consultants working at both internal and external Employee Assistance Programme (EAP) providers, using a structured interview format. Information with respect to currently applied individual, team and organizational level interventions to the nursing profession was also sought. Chapters 7 and 8 describe the background and methodology, followed by the results and conclusions of the final study. The goals of the research included a greater understanding of how knowledge of occupational stress among the nursing profession may be incorporated into management policies. Fourteen themes emerged, comprising three meta-themes: ‘The role of the EAP’, ‘The wounded healer: Personal issues’ and ‘The pressure cooker: Work environment issues’. Current treatments and interventions provided by EAPs include individual and organisational approaches tailored to case by case concerns. However, education with regard to the long-term effectiveness of organisational level stress management interventions is required. The results of the final study may be generalised to Australian hospital nurses. Both internal and external consultants were able to highlight important themes with regard to nurse occupational health on a national level, across multiple hospitals. Similar trends between the findings of this research with international research indicate that this research may be generalised to the nursing profession on an international scale.

Chapter 9 provides an overall synthesis of the findings from both theoretical and applied viewpoints. Strengths and limitations of the conclusions are discussed, along with suggestions for future research. COR theory provides a valuable conceptual framework for both the prediction and integration of the findings regarding common

demands and resources among the nursing profession. In particular, COR theory was used to predict the roles of emotion labour and emotion work in nursing work, which either contributed to the exacerbation or the alleviation of job strain. The findings have implications for policies designed to increase nurse job satisfaction and contribute to retention in the nursing workforce. In addition, EAP providers and practising psychologists and other stakeholders need to develop strategies to address the needs of nursing staff, improve organisational performance, design and implement effective interventions, and reduce attrition rates and unnecessary costs to the healthcare sector. Recommendations based on these findings are provided, including a review of the importance of emotional management and expression in the workplace, and that psychological health services such as EAPs within hospital settings should incorporate interventions that address emotional expression at an organisational level.

CHAPTER ONE
OCCUPATIONAL STRAIN IN THE WORKFORCE

1.1 Introduction: Current problems in Australian health care professions

Psychological stress and injury are prevalent among health care workers and, as a result, health care workers, including nurses, are considered to be a high risk groups. These high rates of psychological distress have been attributed to the excessive demands of service occupations resulting from the increasing need of overtime work, budgetary cuts, and inadequate staffing levels (Duffield, Roche, O'Brien-Pallas, Diers, Aisbett, King, Aisbett, & Hall, 2007). Such pressures and their effects are reflected in mounting workers' compensation payouts (Workcover Corporation SA, 2005-2006) and high rates of staff turnover (Duffield & O'Brien-Pallas, 2003). Hospital settings (employing 53% of all Australian nursing workers), in particular, are considered to be most affected by these problems. It is therefore not surprising that it is these larger institutions that have been most adversely affected by the 8% decline in nursing staff that has occurred Australia between 1986 and 2001 (Australian Bureau of Statistics, 2005, 2006). Few, if any countries, outside Australia are experiencing a similar shortage of nursing services of this magnitude (Duffield, Roche & Merrick, 2006; O'Brien-Pallas & Duffield, 2003).

Nursing services have also been affected by a number of other contextual and structural factors within Australian society. For example, advances in medicine have contributed to longer patient stays in hospital and many more patients are affected by chronic illnesses. Fewer women are now choosing nursing, despite its traditional appeal to women, because of the greater diversity of employment and career opportunities in others areas (Weiss, 2008).

Given all of the abovementioned problems, the broad purpose of this thesis project was to examine the risk factors that contribute to the development of occupational stress and strain, attrition, and psychological harm that is prevalent within nursing populations. Research conducted in this thesis will focus on hospital nursing populations within metropolitan Adelaide, South Australia, using principles derived from previous research in occupational health and organisational psychology.

In addition to examining issues such as burnout and general work-related strain, the thesis will have a specific focus on the more recently developed concepts of emotion labour and emotion work performance and how these constructs influence individual and organisational level outcomes. Such constructs are considered potentially influential in the nursing profession because emotional demands and expectations surrounding emotional expression may be a particularly important cause of stress in this area of work. In this thesis, emotion labour will be conceptualised in terms of existing definitions developed through the work of Brotheridge and Lee (2003). Throughout the thesis, emotion work will be distinguished from emotion labour. *Emotion labour* performance is the feigned expression or suppression of emotions on the job for the benefit of the organisation, whereas *emotion work* refers to a voluntary and effortful expression of emotion that is related to a meaningful relationship forged between the provider and the client/patient, and includes alteration and regulation of emotion states for both parties. This form of emotional expression is designed to benefit to the client/patient as opposed to the organisation when expressed on the job (a feature of emotion labour). This thesis will adopt the methodological approach introduced by Strazdins (2000) to investigate the role of emotion work among Australian nursing samples.

In addition, the study will examine the effectiveness of primary, secondary and tertiary interventions in addressing many of the problems faced by nurses. In particular, a focus will be placed upon the employee assistance programs (EAP) services offered to nurses, as well as the perspectives of EAP consultants with regard to occupational stress within acute care hospital settings.

This chapter (Chapter 1) commences with some definitions of key terms, including occupational strain, and then proceeds to a detailed examination of the structural problems and changes facing nurses. The discussion includes:

1) the volume and cost of workers compensation claims;
2) workers compensation claims in the public versus the private sector;
3) the changing nature of work, the study population (nurses);
4) the cost of work stress among the nursing profession;
5) the changing nature of work as applied to the nursing profession; and

6) empirical studies of the problems facing the nursing profession, including the risk of psychological strain.

This review of the structural problems and causes of work-related strain is then followed by an analysis of the consequences of these pressures on nurses themselves. Separate sections will be devoted to the effects of work-strain on staffing turnover or the intention to leave work (ITL), the specific psychological consequences of work-related strain, and the role of emotion work and labour in the profession. Emotion work and labour are, in a sense, both causes of work-related strain, but also processes that are affected by the broader structural problems that will be outlined initially.

1.2 Definition and scope of occupational stress/strain

Occupational stress is defined both as an antecedent in the form of a work demand (stressor) and also as an outcome (strain). Definitions of the stress concept vary according to the stress model adopted by different researchers [see Chapter 2]. In 1999, the US National Institute of Occupational Safety and Health (NIOSH) provided a generic definition of stress as 'harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker' (Dollard, Winefield & Winefield, 2003, p. 5). Given that the Conservation of Resources Theory (section 2.5) is studied within this thesis, the definition of stress provided by Hobfoll (1989), based on a stimulus-response-based paradigm that 'bridges the gap between environmental and cognitive viewpoints' (Hobfoll, p. 516) will be applied. Stress is defined as 'a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources' (Hobfoll, p. 516).
Strain refers to reactions to stress, often in the form of psychological effects (e.g., cognitive effects, inability to concentrate, anxiety), behavioural effects (e.g., smoking, alcohol or other forms of withdrawal) and physiological effects (e.g., increased hypertension and cardiovascular risk) (Dollard *et al.*, 2003). These effects may be short or long term.

Occupational stress/strain is often referred to as a stress/strain process in that stress is considered to be the process that gives rise to strain (the outcome). The terms

stressor-strain relationship and stress-strain relationship will be used to generally describe the work stress process, even though there are differences between response, stimulus (i.e., sociological models) and stimulus-response based models (i.e., psychological models) of stress/strain (Cooper, 1998).

1.3 Operational definition and assessment of occupational stress

South Australian legislation (the Occupational Health and Safety Act 1986) stipulates that employers have a duty of care to ensure that they maintain safe working environments and the health and safety of their employees, including the minimisation of physical as well as psychosocial hazards. Employers must do all that is reasonably practicable to ensure that risks to health and safety of staff are minimised or are non-existent. For instance, they must ensure that all staff are aware of the formal occupational health and safety (OHS) structures of an organisation, that all staff are appropriately inducted and trained in OHS, promote OHS in the workplace, intervene in the case of an injury by determining how the injury has occurred, and formulate steps to ensure that the injury does not happen again.

In South Australia, occupational health and safety inspectors assess and address physical and ergonomic safety hazards when required under the *Occupational Health and Safety Act.* Psychosocial hazards are the most difficult hazards to regulate. *The Occupational Health and Safety Act SA* (1986) does not define occupational stress, although *section 55* of the Act describes legal requirements, processes and procedures about bullying and harassment, a workplace factor often leading to occupational stress.

Other South Australian legislation pertaining to the assessment and management of occupational stress include the *Workcover Corporation Act SA* (1994), the *Occupational Health, Safety and Welfare Act SA* (1986) (*Amendment Act* 2005) and the *Workers Rehabilitation and Compensation Act SA* (1986) (for injuries sustained after 30 September 1987). The *Workers Rehabilitation and Compensation Act* introduced a new system of workers compensation in South Australia. Under *section 30* of the Act, a disease is compensable is it 'arises from employment' and the test to determine employment contribution to psychological stress is that the work

must be found to be the fundamental cause of a mental illness or disorder.[1] In this circumstance, workers may be entitled to worker compensation claims (Dollard *et al.*, 2003). A psychological disorder or disease is referred to as a disability by *section 3* of the Act. *Section 3 (a)* states that a 'disability' is 'any physical or mental injury including: loss, deterioration or impairment of a limb, organ or part of the body or of a physical, mental or sensory faculty'. In effect, a disability refers to any physical or mental injury including a disease under the Act. Secondary psychological injuries are also compensable.

1.4 Occupational stress and medical diagnosis

The psychological outcome of job stress does not fall under a specific category within the current Diagnostic Manual for Psychiatric Disorders (DSM IV-R), although indicators of psychological distress are closely linked with the development of psychiatric disorders, such as clinical anxiety.

1.5 Cost and prevalence of occupational stress

The cost of stress claims estimated by the Australian Government Rehabilitation and Compensation Office in 1991 was AU$10 million, (Dollard, 1996). In 2008, stress-related costs, including absenteeism have risen considerably, costing the Australian economy $14.81 billion a year, and directly costing employers $10.11 billion a year with a total of 3.2 days lost per year, according to a study commissioned by Medibank Private (Australia's largest provider of private health insurance) in 2008.

In 1990, the cost to injury of staff by work stress in the UK was 3,000 million pounds (Dollard, 1996) whereas, in 2000, it was estimated that the cost of stress-related absences per year was £4 billion, with £91 million attributed to working days lost each year due to mental health-related illnesses. In 2000, Statistics Canada report that the annual cost of work time lost to stress was CA$12 billion (SIEC Alert, 2000).

In 2004 the American Institute of Stress reported that the cost of workplace stress in healthcare, missed work, and stress-reduction was US$300 billion annually

[1] Via legislation or policy, governments may restrict the ability of employees to make workers compensation claims should there be limited funding for this purpose.

and included ‘accidents, absenteeism, employee turnover, diminished productivity, direct medical, legal, and insurance costs, worker compensation awards, as well as tort and FELA [Federal Employers’ Liability Act] judgments’ (STATS, 2004).

1.6 Workers compensation claims made by Australian workers

The Australian Safety and Compensation Council (previously the National Occupational Health and Safety Commission, and now SafeWork Australia) estimated that, during 1995-1996, on the basis of 4,509 cases, the direct cost of workers compensation for work stress[2] was $49,000,000 to the exclusion of Victoria and the Australian Capital Territory), while claims increased by 62 per cent from 1996-97 to 2002-03. Workers compensation claims for other causes decreased over the same time frame (Office of the Australian Safety and Compensation Council, 2006). Although stress claims only accounted for 3.4% of all the cases examined, the average duration of absence per claim was 15 weeks, and the average direct cost per claim was $10,938, estimated to be twice the amount of other types of injury. By 2004, mental stress claims continued to double the amount of other types of compensable injury (Australian Safety and Compensation Council, 2007).

However, many cases of occupational stress are not reported. This is partly given that legislation may limit the ability make a stress claim (e.g., amendments made to the Workers Rehabilitation and Compensation Act 1986 (SA) in 1992). Furthermore, it is not until strain has reached a critical point that many workers make a claim, due to the stigma associated with making a claim, as well as expectations about organisational consequences and challenges of making a claim (Dann, 1997; Dollard *et al.,* 2003). In addition, Toohey (1995) states that organisational costs such as staff replacement, retraining, special supervision arrangements, work flow interference, unplanned absences and service complaints, and the cost of sick leave leading up to the claim are often not included in impact assessments. There are also personal costs to the individual, such as loss of self-esteem, the exacerbation or

[2] Compensation for stress (or a stress claim) refers to the incident ‘when work is shown to be a substantial cause of the disorder or illness of the mind,’ as assessed by entitlement of Australian workers under legislation such as the *Occupational Health, Safety and Welfare Act 1986* (South Australia).

development of physical symptoms, loss of professional esteem, professional sensitivity, physical stamina, disruption of intimate life, lost hours of professional development, and increased psychological distress.

A study conducted by the Australian Safety and Compensation Council in 2006 on work-related mental disorders in Australia revealed that worker compensation claims for mental stress as a percentage of all disease claims ranged from 13 to 43.1% in all Australian states from 1998 to 2002. This indicates that mental stress remains a key determinant of poor occupational health in Australia. According to the study, 'work pressure' is the most common rationale for a stress claim in relation to mental illness (49.5%, excluding NSW), compared to 'exposure to a traumatic event' (10.7%), 'exposure to workplace or occupational violence' (13.8%), 'harassment' (11.5%), 'suicide or attempted suicide' (.2%) and 'other mental stress factors' (13.5%). The amount of workers compensation claims for mental stress, the costs due to these claims, as well as the time lost between the years 1988 and 2004 for the large South Australian public hospital sampled in the research program is summarised in Appendix 1.1.

1.7 Workers compensation claims in the public versus the private sector

There are differences between public and private sectors that may influence occupational health as well as the number of worker compensation claims made by employees. This observation is relevant to this research, given that nurses from both public and private sectors will be considered.

As WorkCover SA statistics indicate, proportionally more stress claims are typically made by public sector workers than private sector workers (taking into account the amount of workers in both the public and private sectors). This suggests that the problem of occupational stress may be worse in the public sector. However, Dollard and Walsh (1999) suggest that differences in the number and costs of claims between sectors may result from differences in the nature, as well as the management of stress claims between the sectors. The authors assessed costs of stress injuries to individuals and organisations, in addition to commonly used measures of economic data by statisticians. According to Dollard and Walsh, although the private sector is currently experiencing a similar rise in stress claims to the public sector, differences

in work stress leave patterns between the sectors relate to the public sector's purpose and reputation of responding to the needs of the citizen, and the private sector's purpose and reputation of responding to consumer demand. Profits and productivity are central to the private sector, whereas the objective for the public sector is to provide a service to the community. Although the majority of stress claim incident rates appear to be higher in the public sector (six times higher in some cases) (Dollard & Walsh, 1999), the average duration of claims and the cost of claims was found to be higher for the private sector.

Justifications for the higher stress claim incident rate for public sector workers, and higher cost and duration of stress claims for the private sector include:

(1) more 'at risk' occupational groups to work stress comprise the public sector;
(2) public sector workers may be more aware of current policies and interventions of their organisation than private sector workers, (e.g., the public sector is traditionally more aligned with workers' unions);
(3) public sector organisations attach higher priority in human factors and rehabilitation of workers affected by human factors;
(4) the size of public sector organisations and departments by comparison to the private sector may enable workers to develop identity loss, and to feel less guilt with regard to disruption of workflow;
(5) the public sector have undergone and is continuing to undergo greater downsizing, outsourcing and restructuring (although this may also occur in the private sector);
(6) there is a greater threat of job loss in the private sector, such that employees may be less likely to voice their opinions than public sector workers;
(7) rehabilitation process in the public sector may be superior to those in the private sector; and
(8) claim rates may be influenced by media and public representations of work stress (Dollard & Walsh, 1999).

Another distinction between public and private sector workers is that private sector workers may not make a stress claim until a situation has reached a crisis point (possibly due to some of the factors described above) (Dollard & Walsh, 1999).

1.8 Prevention, assessment and treatment of occupational stress and injury

A division of the Australian government, Comcare, produced a four-step plan as a guide for human resource managers of occupational health and safety for the prevention and management of psychological injury (Comcare, 2005). Step one stipulates a need to identify sources of potential harm to psychological injury. Step two is an assessment of the risk of potential harm to employee wellbeing and includes an analysis of organisational and work team information that may aid in clarification and understanding the nature, extent and causes of workplace psychological injuries. Step 3 involves 1) the development and implementation of a preventative (i.e., primary intervention) plan to address workplace factors posing risk to psychological injury, 2) responding to warning signs and intervening early (i.e., secondary intervention) in order to minimise workplace stress, and 3) in the case of workplace stress, the implementation of effective rehabilitation and return to work (i.e., tertiary intervention). Finally, Step 4 comprises monitoring and reviewing the implementation and effectiveness of interventions via the measurement and reporting against targets, performance indicators and strategy goals.

Health and Safety Executive (HSE) Management Standards for good practice in work stress management

The Health and Safety Executive (HSE) (2005, 2007) in the United Kingdom have developed management standards that serve to assist in reducing occupational stress. These standards have been adopted by many organisations around the world, including Australia. Although many Australian organisations have adopted the occupational stress management guidelines, a formalised set of management standards such as those provided by the HSE are not currently available in Australia. The HSE management standards focus on six key areas of work including demands, control, support, relationships, role and change. *Demands* refers to workload, work patterns and the work environment, *Control* relates to how much a person can control how

they perform their work, and *Support* is inclusive of encouragement, sponsorship and resources provided by the organisation, management and colleagues. *Relationships* involves the promotion of acceptable conflict and discouraging conflict, *Role* refers to reducing employee role conflict and fostering of role clarity by the organisation, whereas *Change* refers to management and communication practices of organisations during organisational change.

The first recommendation by HSE for using stress management standards is to identify hazards in the workplace. The management standards are reviewed and understood, and commitment is sought from senior management, employees and employee representatives. The second step is the recognition and reasons for which employees within an organisation are most vulnerable to work-related stress. A survey may be conducted with regard to the six key areas of work, or alternatively HSE's Analysis tool may be used to establish levels of sickness absence, productivity, turnover, performance appraisal, and accounts of stress given by employees. Team meetings and focus groups may also be used as methods for collecting data.

The third step is evaluation of the risk and plans for action to reduce work stress risk. This may involve measurements of performance against management standards, identification of problematic hot spots, providing feedback to all employees, acknowledging individual as well as group concerns, and developing and implementing solutions in consultation with employees and their representatives. The fourth step involves developing an action plan and recording of findings and key future milestones while providing feedback to employees during the process. The final step is the monitoring and review of the action plan, evaluation of the effectiveness of the developed solutions, and a follow up, typically via survey instruments on an annual basis.

1.9 The changing workforce and working arrangements

Globalisation, economic demands and international competition have resulted in the restructuring of public and private sector organisations. The restructuring of organisations may in turn, influence the psychological health of Australian employees (Moore & Mellor, 2003). In addition, greater economic rationalism has encouraged

changes that have simultaneously resulted in loss of job security and threat of job loss for Australian workers since the late 1980s. For example, the desire for improved productivity on the part of managers encourages a reduction of output costs per unit, such as downsizing and lean production (Cooper & Cartwright, 1994). Another factor has been the increase in flexible or casual contracts and other insecure forms of employment (Duffield *et al.*, 2007). Workers have also been faced with significant changes in technology that have given rise to a greater need for the ongoing acquisition of new skills.

In addition, recent proposed industrial relations changes in Australia threatened to play more power in the control of employers by taking away liberties of workers such as reduce take-home pay and employment conditions. These changes are expected to bring about a rise in occupational stress attributed to bullying, job insecurity and work overload, according to the secretary of the Australian Council of Trade Unions (Dollard, 2006).

1.9.1 The changing nature of work and long working hours

A common problem among many health care professions is the requirement to work longer hours due to a shortage in health care professionals (Dorrian, Lamond, van den Heuvel, Pincombe & Dawson, 2006). There has been an increase in Australian working hours on the whole in line with trends in the United States and the United Kingdom. In 2007, the International Labour Organisation, after studying 50 countries, reported that of the countries where employees were working more than 48 hours per week, Peruvians topped the list with more than half (50.9 per cent) working more than 48 hours a week. In developed countries (where working hours are generally shorter), 25.7 per cent of British workers put in more than 48 hours a week, followed by Israelis (25.5 per cent), Australians (20.4 per cent), Swiss (19.2 per cent) and U.S. workers (18.1 per cent). Australia therefore remains one of the top three countries working excessively long hours in recent years.

It appears that employees are disadvantaged if they do not work long hours. Pocock (2003, p. 25) states, ‘the mechanics of this power relation are created by the demands of some industrial agreements, job deadlines, staff formulas, complex teaching demands or deeply ingrained workplace cultures. The decline in union

density enforced the fracturing of industrial regulation, and weak industrial inspectorates have also contributed to the growth of work hours'. The average number of full time working hours contributed to an extra months work each year compared to 1982 - most of it unpaid (Pocock, 2003). In an attempt to control hours worked, employees may change jobs, change their working status to part time, change employers and accept demotions. In a recent newspoll survey in Canada (Hamilton Mail, 2003) 23% of 981 workers shifted to a lower paid job, and more than one third of those who decided to reduce their earnings were motivated by a desire to have more time with family. Despite receiving less money, the majority was content with the change (Pocock, 2003).

A decrease in extended family and neighbourhood support has led to many women going to the market to obtain child care and other domestic help, and many organisations have failed to embrace the idea of family friendly environments that would enable women to 'balance' work and home life. There remain few affordable quality childcare organisations and equitable workplaces offering paid maternity and carers' leave (Pocock, 2001, 2003). Long working hours and a pressured workplace can have direct negative spillover effects from working life to relationships with one's spouse and children.

Many employees working long hours have limited relationships with their children, and a gender difference in work/home patterns exist, with males working long hours, dependent on their wives to be unpaid carers. Growing demands in many workplaces and employment insecurity cause difficulty for many workers. Many workplaces assume that individuals are able to compartmentalise work and home roles and, as a result, many employees experience guilt, ill-health, lost careers, exhaustion and poor relationships. This in turn, affects the quality of life for men, women, the aged, children, workplaces, productivity, the labour market, and costs governments money (Pocock, 2003). For example, fatigue was found to be four times as likely to be a cause of workplace dysfunctions that is comparable to the effects of alcohol or drugs (Dawson, McCulloch, & Baker, 2001).

1.9.2 The changing nature of work and women's participation in the workforce

Over the last 20 years, the patterns of work across Australia have significantly changed, although patterns of unpaid work remain more traditional than paid work. Fredriksen and Scharlach (1999), using statistics from the Older Women's League (1989), reported that approximately 1.8% of women were caring for both children and an elderly relative, more than 50% are employed and that approximately 3% of working women combined caring for children under 15 years as well as a disabled parent. These authors predicted that 'increased life expectancies combined with a tendency among many families to delay childbearing may lead to an increase in the number of employees with multigenerational caring responsibilities' (p. 189).

In 1980, 37% of Australian women were employed outside the home. By 2000 this increased to 54 percent. Consequently, women are spending more hours outside the home and in local communities, and more often in workplaces. This has profound implications for the way they live at present. By contrast, men's participation in paid work has decreased, with 73% of men in Australia of working age in paid work, declining from 20 yrs before (Pocock, 2001).

A majority of human service professionals, including nurses, are women (Australian Bureau of Statistics: Australian Social Trends, 2005; Philips, 1996). Women also have an increased likelihood of having to perform multiple roles, often outside of the workplace (unpaid) (Strazdins, 2000). According to the Australian Bureau of Statistics (1997), 91% of unpaid work is domestic work and two thirds of women are performing unpaid work in the form of cooking, cleaning and childcare. Women complete more physical, maintenance and emotional tasks than men (Pocock, 2003). These changes have implications for men, women, children and the community, as the shift has resulted in a community of support in the workplace in lieu of the local community. This, in turn, has implications for non-employed individuals who do not have the opportunity to be involved in this type of community because employed individuals may be able to rely on support networks to which unemployed individuals would typically not have access.

1.10 The study population: Nurses

1.10.1 The nature of the nursing profession: Who makes up the nursing profession and what do nurses do?

A National Review of Nursing Education (2002, p. 45) conducted by the Australian government defines the practice of nursing as 'characterised by distinctive traditions, skills, knowledge, values and qualities' - that is, it forms a discipline. One of these values is 'caring'. Further, the report states, 'defining this intrinsic nursing value is part of the development of the discipline of nursing as it evolves to meet the emerging needs of the community. Articulating that value to the community is one of the challenges nursing faces as it evolves to respond to very different practice environments.' In particular, the review argues that increasing high workloads, patient turnover and work structures, where the treatment orientated medical model is paramount, has meant that nurses have not had the opportunity to attend to all aspects of patient's health, reducing their ability to provide care delivery as a 'carer' rather than a care planner.

In 2001, 91% of nursing workers were female, a decrease from 93% in 1986. Overall, the rate of nursing workers decreased from 10.8 per 100,000 Australian residents in 1986 to 9.8 per 100,000 residents in 2001, although South Australia held the highest rate of all Australian states and territories of nurses (1,339 per 100,000 people) (ABS, 2006). Compared with 1986, where 37% of nursing workers were working part-time, 49% of nursing workers were working part time in 2001, and this has led to an exacerbation of nursing shortages and the requirement that more nurses being required to provide the same level of nursing services (ABS, 2005). By 2006, the proportion of nurses working part-time (49%) was higher than the rate of all employed individuals (31%) (ABS, 2006). In 2001, census data revealed that 40% of all nursing workers were aged 45 years and over, an increase of 18% since 1986 (ABS, 2005). An ABS Working Arrangements Survey revealed that in 2003, compared to 38% of all workers, 30% of nursing workers worked overtime on a regular basis (ABS, 2005). Although the number of nursing workers employed in hospitals (111,000) decreased by 8% (102,000), the number of nursing workers working in general practice increased by 105% (ABS, 2005). In 2006, 62.8% of nursing workers were working in hospital settings (ABS, 2006).

Enrolled nurses are likely to hold an Australian Qualifications Framework Diploma or higher qualification, or at least three years experience, whereas many registered nurses have a skill level commensurate with a Bachelor degree or higher qualification and include nurse managers, nurse educators and researchers, registered midwives, and registered mental health nurses. Seventy three percent of employed women with a Bachelor degree or higher in a nursing field were working as nursing professionals in 2001 (ABS, 2005).

Duffield and Wise (2003) utilised work sampling as a research method in order to assess and evaluate what nurses did and how they spent their working day in the Australian city of Sydney. Four major categories totalling 25 measured activities formed the research tool. These categories included 'direct care', 'indirect care', 'unit-related' and 'personal time'. In line with Jinks and Hope's (2000) study conducted in the US on acute care hospital nursing staff, the findings indicated that all nurses had spent the majority of their working day performing indirect care activities (39.6%) (e.g., verbal report and handover, room/equipment set up, medication/IV, preparation, progress/discharge notes, and data entry and retrieval), followed by direct care activities (29.4%) (e.g., administration of medications/IV therapy, patient/family interaction, specialised procedures and assisting with procedures), personal time (18%) (e.g., meal breaks) and unit-related level care activities (13%) (e.g., teaching and in-service, checking and re-stocking of supplies, and clerical duties). As a group, registered nurses spent the majority of their time performing indirect care activities (45.2%), followed by direct care (28.3%), personal time (19.9%) and unit-related activities (6.6%). With respect to direct care, registered nurses spent the majority of their working day performing admissions and assessments, in procedures and assisting with procedures. These findings suggest that nurses are performing fewer activities that allow direct contact with patients, with the majority of activities associated with the co-ordination and management aspects of patient care. This circumstance is likely to be a consequence of time constraints rather than based on efficiency and needs of nursing wards, and the use of work sampling techniques may benefit nursing management (Duffield & Wise, 2003).

1.11 Workers compensation claims made by nurses and reports of workplace violence

Registered nurses formed part of the top six professions affected by mental disorders for both the South Australian public and private sectors from 1998-2007. Registered and enrolled nurses in the public sector held the highest and second highest number of claims, respectively, for South Australia (Annual Workcover compendium of statistics, from 1998-2007). In the private sector, registered nurses were within the top five highest number of claimants between 1998-2007 (peaking at number one in 2006-2007) in South Australia, with enrolled nurses within the top ten. Female registered nurses made the highest number of claims between the ages of 40-53 for the years 1998-2007, whereas male registered nurses made the highest claim total within the 20-30 age range.

The above reports are in accord with the results of a study by the Australian Safety and Compensation Commission. In this study, 955 nurses completed an on-line questionnaire that invited respondents to rank the level of risk from workplace hazards. Workplace stress was one of the workplace hazards identified as 'high' by at least 40% of respondents. Of the respondents, just over half (51.2%) reported suffering at least 1 work-related injury/disease requiring time off work. A comparison of respondent characteristics to those of the Australian Nursing Federation members and the entire nursing workforce suggests that the survey participants were a representative sample.

Workplace violence is a constant stressor for nursing staff, potentially leading to workers compensation claims. The level of workplace violence for registered and enrolled nurses, respectively, within South Australian public and private sectors in South Australia has remained stable from 2000 to 2006 [registered: 19 (2000) versus 14 (2006) claims, and enrolled: 10 (2000) versus 11 (2006) claims - private sector; registered: 43 (2000) versus 38 (2006) and enrolled: 21 (2000) versus 24 (2006) claims - public sector].

1.12 The changing workforce and nursing

From 1992 to 2002, enrolments for Australian tertiary nursing courses decreased (Duffield & O'Brien-Pallas, 2003). This has coincided with a decrease in the numbers

of nurses employed in Australian hospitals (see section 1.9.1) as a result of higher retirement rates combined with lower rates of recruitment. A national review of nursing education (2002) conducted by the Australian government reveals that, between 1994 and 1999, the number of nurses completing bachelor of nursing degrees had decreased from 9,525 to 5,844. However, encouragingly, more recent records from 2001-02 to 2005-06 of the nursing board of South Australia indicate that there has been some recovery in numbers. The number of registered and enrolled nurses and midwives has increased from N=748 in 2001-02 to N=1,189 in 2005-06. A total of 32,621 nurses (enrolled, registered, mental health, midwife and nurse practitioners) became active on the register/roll of the nursing board in 30 June 2006. However, despite this, Australia is still experiencing a nursing shortage despite the recent annual increase in trained nurses into the workforce.

The age profile of nurses entering the profession has increased, and many more nurses graduate with higher tertiary qualifications, including masters and doctorate degrees. Duffield and O'Brien-Pallas indicate that 41% of nurses in Australia are 40 years of age or older. This recent gain in experience and qualifications ensures that nurses are more marketable to industries outside of health, enabling more opportunities for those with multiple career options to leave the profession. Data suggest that the number of nurses employed in other countries is increasing, with Australia currently falling behind (Duffield & O'Brien-Pallas, 2003). Lifestyle choices and the introduction of more contract work and part time employment will also result in many nurses opting to be less readily available as previously. In addition, Australia will require more nurses with the introduction of new roles, such as practice nurses and nurse practitioners (Duffield & O'Brien-Pallas, 2003).

Another aspect of the circumstance facing the nursing workforce that currently affects Australian nurse retention is the lack of patient beds, which has led to an incredibly complex mix of patients in regular wards. The import of psychiatric and other violent patients into public hospital emergency and general medical wards due to limited patient bed numbers has placed unnecessary stress on medical nursing staff, who are often the victims of violence from patients (Bildstein, The Advertiser,

May 21, 2004; Sandy, Sunday Mail, August 7, 2005)[3]. This occurrence has further led to a need for security guards to enter the wards in order to manage increasing numbers mental health patients.

Further compounding these problems has been the nature of organisational structures that have served to disempower senior nurses or middle nurse managers. It is more common for senior nurses to be left to manage units without other assistance or extra training. More broadly, evidence continuously supports that the view increasingly high workloads, increasing demands on understaffed nursing teams, and the introduction of unskilled workers amongst other factors, can lead to a greater risk of errors and poorer health outcomes for nurses (Andrews & Dziegielewski, 2005; Dorrian *et al.,* 2006; Duffield, & O'Brien-Pallas, 2003; O'Brien-Pallas, Duffield & Hayes, 2006; Duffield *et al.,* 2007; Sparks, Cooper, Fried & Shirom, 1997). Explanations for an increase in nursing workload in recent times is attributed to the changing nature of the nursing profession and clinical practice, including faster expected patient turnover (believed to represent better patient care quality, as well as a product of an ageing population, resulting in patients who are acutely ill for shorter periods of time) (Pearson, Porritt, Doran, Vincent, Craig, Tucker, Long & Henstridge, 2006). The introduction of complex technologies to nursing has also resulted in greater cognitive demands on nursing staff (Dorrian *et al*., 2006).

In 2002, other identified problems in South Australia included workplace bullying, violence from patients, inflexible work hours, despair over balancing family life with work, lack of child care and concern about career paths. It was also estimated at the time that, despite South Australia holding the highest number of nurses than any other Australian state (1339.3 nurses per 100,000 persons) (ABS: Australian Social Trends, 2005), the State was more than 700 nurses short and that dramatic action needed to be taken. To this end, one hundred and thirty strategy recommendations were implemented in order to retain existing staff, overcome the nursing shortage and spark the interest of nurses who have temporarily left the profession for reasons associated with motherhood. However, two years later, the South Australian nurses

[3] The Sunday Mail and The Advertiser are Australian newspapers from the city of Adelaide, South Australia.

union revealed that only 30 per cent of the strategies devised had been implemented, suggesting that little had changed to overcome the prominent problems affecting the nursing workforce (Crouch, Sunday Mail, March 14, 2004). Given the current annual increase in demand for nurses at 2.56%, is it expected that Australia will be undersupplied of nurses by 40,000 by the year 2010 (Karmel & Li, 2002). This is explained by the increasing age of nurses, as well as the increase in hospital discharges from 1995 until 2000, both leading to reduced numbers of nurses that remain who are faced with increased demands in workload and working hours.

1.12.1 Nursing and long working hours

According to the International Council of Nurses (2003), in order to manage an increased nursing workload, many nurses have been working overtime over the past decade. This circumstance is associated with unpredictable hours and irregular rest breaks, and in turn, has created an experience of being exploited and undervalued among the nursing fraternity, thereby leading to greater staff turnover. Moreover, working long hours with an extended workload with limited staffing is thought to contribute to sleep loss and elevated fatigue and this may result in a greater risk of accidents and errors.

Previous research indicates that 230,000 preventable adverse medical events and 12,000 preventable deaths were the result of Australian medical errors, with economic costs totalling $1 to 4 billion per annum in Australia. In addition, a study in the U.S found support for the increase in error likelihood with increased overtime for shifts greater than 12 hours, and work hours in excess of 40 hours per week (see Dorrian *et al*., 2006 for review).

When the relationship between work hours, sleep duration and quality, fatigue, and errors was applied to a sample of Australian hospital full time nurses the results indicated that nurses struggled to remain awake during 36% of shifts, and experienced moderate to high levels of stress, physical exhaustion, and mental exhaustion on 23%, 40% and 36% of shifts, respectively. Other factors showed that drowsiness was experienced on 45 occasions with 3 reports of near accidents (11.5% of the sample), and 11 moderate errors, four with potentially serious consequences. Less sleep was

not only associated with a greater number of errors, but also a greater risk that the errors of others would remain unnoticed.

1.13 The organisation and individual effects of workplace strain

The aim of the second part of this chapter is to provide a more detailed examination of the structural/organisational and psychological effects of the problems described above on the nursing profession. As indicated in Figure 1.1 (the researcher's conceptualisation of the structural/organisational and psychological effects), nursing is a challenging profession because of the significant emotional demands placed on workers. These demands and challenges lead to various outcomes. Some of these outcomes occur at an organisational level (higher staff turn-over and intentions to leave), whereas others refers to the harm caused to individual nurses, including occupational stress, job satisfaction and commitment. The sections that follow summarise some of the empirical evidence that has examined these outcomes in the nursing profession. The review will commence at the broadest level (organisational outcomes), discuss evidence relating to broad psychological outcomes and then discuss the processes of emotion labour and emotion work. The topic of burnout, because of its links with broader theories of occupation strain, is discussed in Chapter 2.

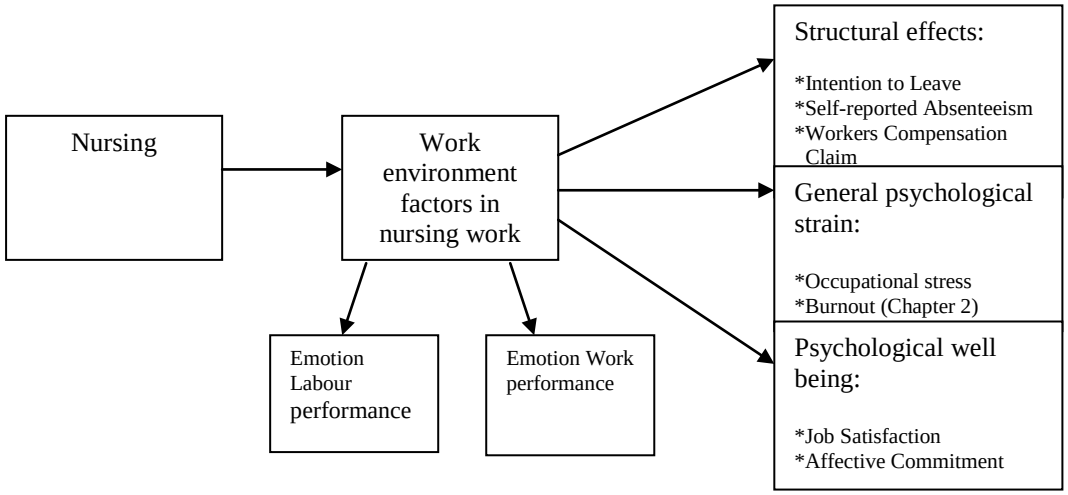

Figure 1.1. The psychological effects of work environment factors on individual and organisational outcomes in nurses.

1.13.1 Structural/workforce effects

Intention to Leave (ITL)

The term intention to leave[4] refers to the intention to transfer between sectors within an organisation, an intention to leave an organisation, a profession, or to cease work altogether. This definition also encompasses voluntary and involuntary turnovers (not often distinguished due to similar costs incurred by either form to an organisation), as well as internal and external turnover (Hayes, O'Brien-Pallas, Duffield, Shamian, Buchan, Hughes, Spence Lashinger, North, & Stone, 2006).

It is possible to examine staff turnover in several ways. One way is examine actual staff turnover, whereas another is to examine people's subjective intention to leave. Given that actual turnover is highly correlated with intention to leave (Irvine and Evans, 1995; Hayes *et al.,* 2006; Parasuraman, 1989), self-reported intention can be often used as an alternative to actual turnover records. This is particularly useful given the difficulties associated with accessing staff turnover data (see Section 6.3). However, it should be noted that the strength of the relationship between intention to leave and turnover behaviour decreases as time passes (Hayes *et al.,* 2006; Parasuraman, 1989), so that it is best that this practice not be used for longitudinal study designs. In addition, intention to leave comprises only a portion of variance in actual turnover. It therefore needs to be recognised that different factors may come into play when examining the intention to leave and actual turnover. For example, some people who dislike their job may stay because there are no other options or because the desire for an income outweighs their dislike of their position.

'Best Practice Australia' conducted a benchmark study from 2001 to 2002 throughout Australia and New Zealand (N=17,020). Of the nurses who responded, 48% of nurses were at risk of leaving nursing, while 41% were at risk of leaving their organisation. In the public sector (N=12,231), 47% (43%) were at risk of leaving nursing (their organisation), while in the private sector (N=4,732) 48% (37%) were at

[4] Intention to leave refers to an employee's intent to cease employment at a particular organisation, or to an employee's intent to cease employment within a particular profession within the previous twelve month period.

risk of leaving nursing (their organisation). In metropolitan areas, 50% (42%) were at risk overall (N=13,582). Nurses who were employed in casual positions (N=930) were least at risk 47% (29%), followed by nurses in part-time positions (N=6,468), with 46% (39%), and nurses employed full time (N=6,938) 50% (43%). The age group 26-30 were at most risk of leaving (N=1,959) 58% (47%), while nurses over 50 years (N=2,271) were less likely to leave the nursing profession (their organisation) [39% (31%)].

The top six (out of 28) nursing specialties with the highest risk of turnover were orthopaedics (N=156), with 60% (50%) (the organisation), followed by paediatric intensive care (N=59) 54% (54%), cardiology (N=251) 56% (49%), neurology (N=118) 57% (50%), ophthalmology (N=41) 62% (54%) and critical care/intensive care (N=1.038) 56% (46%). Apart from pay, shiftwork/hours, workload, low staff numbers and stress, the remaining 25 reasons for nurse turnover from the profession (in order of preference) include lack of recognition or respect, management, career/growth opportunities, conditions and equipment, needing a change, lack of support, abusive client behaviour, physically heavy work, work-life balance (family considerations), conflict with others, job dissatisfaction, retirement, doctor's attitudes, health concerns, lack of communication, paperwork, budget and funding considerations, bullying/harassment, lifestyle choices, low staff morale and poor decision-making.

In Hasselhorn, Tackenberg, & Mulller's (2003) (part of the NEXT study) totalling over 34,000 respondents, 53.9 per cent of nurses suggested that they had never considered leaving the nursing profession, whereas 15.6 per cent considered it often. In addition, the British sample revealed the highest proportion of nurses wanting to leave, with 7 per cent considering leaving nursing daily, and 36.2 per cent often. Italy (18.5%) and Germany (20.7%) contained the next highest proportion of nurses intending to leave, while Slovakia, Poland, Norway, the Netherlands and Belgium showed the lowest rates.

Explanations for higher proportions of ITL reached in Italy, Germany, and the UK when compared to Norway and the Netherlands include differences in working conditions between countries. Only forty four point seven per cent of German nurses

held the same role for five-years or longer, by contrast to 82 per cent of nursing staff working for the same duration in countries with lower ITL scores. ITL was most pronounced in hospitals, followed by nursing homes and home care institutions. Indeed, many sources suggest that the nursing shortage due to turnover is a global problem.

A number of explanations have been advanced to explain why nurses want to leave the profession. According to Hasselhorn, Tackenberg and Mulller (2003), the two principal reasons why nurses wish to leave the profession are (1) a desire to seek personal development and seek employment options that fulfil these plans, or (2) that nurses resign due to bad health, low work ability and are burned out. About one third of nurses consider alternative careers and qualifications in health care, opening the possibility of increased responsibility and higher wages, while the latter group may have fewer choices outside health care than the former group. Other reasons are summarised in a number of studies such as Aiken, Clarke, Sloane, Sochalski, Busse, Clarke, Giovannetti, Hunt, Rafferty, & Shamian (2001), Andrews and Dziegielewski (2005), Edwards & Burnard, 2003; Grandey, 2000; Hayes *et al.* (2006), and Melchoir *et al.* (1997), conducted in nations such as the USA, Canada, England, Scotland and Germany.

Longitudinal studies confirm that personal and work environment variables (e.g., management style, autonomy, promotional opportunities, ability to provide patient satisfactory care, and work schedules) are related to ITL via their effects on stress, job satisfaction and organisational commitment. For example, low organisational commitment is observed among nurses with high ITL and this potentially affects the quality of nursing work (Andrews & Dziegielewski 2005; Hasselhorn, Tackenberg, & Mulller, 2003; Pelletier, Donoghue, & Duffield, 2005; Hayes *et al.,* 2006). Other researchers have examined the importance of organisational commitment. For example, according to Wagner's (2007) review of twenty-five studies, organisational commitment indirectly predicts turnover in nursing, has greater predictability than job satisfaction, and has a direct impact on antecedents of turnover, such as intent to stay. Professional commitment influences intention to leave nursing, whereas nurses committed to both their career and the

organisation are less likely to leave the organisation (Hasselhorn, Tackenberg, & Mulller, 2003).

Other researchers have focused more strongly on job dissatisfaction (Hayes *et al.*, 2006; Hinshaw & Atwood, 1983; Lum, Kervin, Clark, Reid, & Sirola, 1998; Randall, Andrews & Dziegielewski, 2005). Job satisfaction has been identified as a key factor linked to nurse turnover and been found to be twice as predictive as duration of employment, and four times as predictive as perception of alternative employment opportunities, age, gender and educational level (Andrews & Dziegielewski, 2005; Irvine & Evans, 1995; Lambert, 2001; Hayes *et al.*, 2006; Hogan & Barton, 2001; Pelletier, Donoghue, & Duffield, 2005). Andrews and Dziegielewski (2005) report that fifty-five per cent of nurses intending to leave nursing express low job satisfaction. One in three nurses in Sochalski's (2002) study, and over forty per cent of nurses in Aiken *et al.'s* (2002) multinational study expressed job dissatisfaction, including nurses from England, Canada, Scotland and Germany.

Further, it is alleged that job satisfaction is more strongly related to nurse turnover than other factors via its association with management practices, decisions regarding promotional prospects, employment security, professional development and, the opportunity to perform clinical duties (Hayes *et al.*, 2006; Andrews & Dziegielewski, 2005), dissatisfaction with quality of decisions made by management, dissatisfaction with the amount of in-service training, and dissatisfaction with physical working conditions (Tilley & Chambers, 2003). Voluntary turnover is also more common among individuals holding negative, rather than positive (i.e., optimistic and action-orientated) dispositions (Hayes *et al.*, 2006).

Although socio-demographic factors such as age, short employment tenure, high educational qualifications, and number of children have been reported to predispose turnover, findings are inconsistent. Lower financial rewards or alternative employment predict nurse turnover more strongly (Hasselhorn, Tackenberg, & Mulller, 2003). The Best Practice Australia benchmarking study into nursing attraction and retention indicates that pay rates is the top reason that nurses wish to

leave the nursing profession. Similarly, the fourth highest reason (out of 25) that nursing staff would consider leaving their organisation is rate of pay.

At the same time, some research shows that the reported correlation between job satisfaction and economic factors has been over-stated and that characteristics of the work environment hold more of an impact on nurse turnover than pay. According to this view, the key rationale attributed to nurse turnover is reduced ability to successfully moderate aspects of the work environment, in lieu of factors such as an increase in financial rewards for nursing work (Irvine & Evans, 1995). A similar view is articulated by Aiken *et al.* (2001). In their study, conducted in the US, 57% of nurses in the US indicated that their salaries were adequate. Salary was neither a source of satisfaction, nor dissatisfaction, except in the case where nurses compared salaries between hospitals [Andrews & Dziegielewski 2005; McNeese-Smith, 1999; O'Brien-Pallas *et al.,* 2006].

A challenge with intention to leave (ITL) research is that much of the information, by necessity, is based on self-report information that is not always reliable. For example, there are problems inherent in studies that require participants to retrospectively recall the amount of times in the previous 12 months they intended to leave their organisation or profession. Common methodological challenges for researchers include inconsistent definitions of turnover, variant study populations, as well as inaccurate reasons provided for turnover (i.e., lack of clarity between the concepts voluntary and involuntary turnover), therefore making it difficult to compare and generalize across studies. These circumstances may result from inconsistent record keeping of turnover as well as reasons given for turnover between organisations. Other methodological issues particular to research on turnover include the amalgamation of subgroups into one sample, serving to merely establish average scores, use of turnover as a dichotomous outcome variable, few examinations of turnover at the organisational level, little qualitative research investigating reasons for turnover, as well as a paucity of research investigating factors that moderate turnover behaviour.

For these reasons, it has been suggested that turnover is a variable that is too complex for simple correlation analyses, given that other third variables and correlates

may influence the relationship between an assumed predictor and ITL (Hayes *et al*., 2006). To fill this gap advanced statistical methods, such as multivariate analysis, are often used to determine the strongest predictors. It is therefore preferable that this research program examines intention to leave using multivariate analyses.

Self-reported absenteeism

The behavioural outcomes of self-reported absenteeism[5] and workers compensation claims are of interest in stress research because they are also indicative of workplace health and organisational performance. Using the JD-R model, Bakker, Demerouti, de Boer and Schaufeli (2003, p. 344-345, See Chapter 2) found that measured job demands (defined as 'physical, psychological social, or organisational aspects of the job that require sustained physical and/or psychological effort'), such as high work pressure, role overload, poor environmental conditions, indirectly (via emotional exhaustion) predicted higher absence duration. Measured job resources (defined as 'physical, social, psychological, or organisational aspects of the job that that are either/or functional in achieving work goals, reduce job demands and associated physiological and psychological costs, or stimulate personal growth and development' such as pay, career opportunities, supervisor and co-worker support, participation in decision making, performance feedback and autonomy, indirectly (via organisational commitment) predicted low absence frequency.

Withdrawal behaviours such as absenteeism have been reported among occupations where high amounts of emotion regulation are required, such as nursing (Grandey, 2000; Hammer, Bauer, & Grandey, 2003). In the review of studies on stress and stress management of mental health nurses from 1966 to 2000, higher psychological wellbeing, higher professional fulfilment and emotional exhaustion were associated with shorter sick leave in the previous year (Thomsen *et al.*, 1999). Alternatively, according to a 'Working Well' survey for the Royal College of Nursing in 2002, the predominant reason for absence of 30% of nurses on long-term sick leave were reports of harassment and intimidation associated with gender, age, race, sexuality, or personality clashes.

[5] Self-reported Absenteeism is defined in this thesis as the period of absence from work (not including paid or unpaid sick or annual leave) within the previous twelve months.

In Estryn-Behar *et al.*'s (2004) study (part of the European NEXT study), over half of respondents declared having not taken sick leave in the previous 12 month period in Poland, Slovakia, Belgium and France, while a short sick leave span of 5 days or less occurred more often in the UK, Norway, the Netherlands and Finland. Sick leave time of more than 15 days was also taken in France, Finland and Germany for 16% of nurses.

Some factors such as social support from colleagues may serve to reduce sick leave absence. In Petterson, Hertting, Hagberg and Theorell's (2005) longitudinal Swedish hospital study of 8 years duration during a period of staff redundancies and restructuring processes, sick leave increased when time to plan work decreased. An increase in stable, short-term sick leave rates were also a function of lack of support, consistent with Patterson, Hertting, Hagberg & Theorell (2005), whereas social support via teamwork and communication is reported to be the most influential source in the reduction of errors (Broadbent, Cooper, Fitzgerald & Parkes, 1982; Estryn-Behar *et al.*, 2004).

As with ITL, there are methodological challenges associated with using these measures. Accordingly, Hammer and Landau (1981) recommend that, in order to ensure stability in absence measures and avoid methodological problems, a time-lag of one year or more is suitable. In addition, where there is anonymity of respondents, tracking stressors to behavioural outcomes is difficult (Jones & Bright, 2001). Moreover, self-reported absenteeism may not match objective methods of collecting absenteeism data due to the possibility of inaccuracy resulting from social desirability or optimistic bias. Obtaining absence data using objective methods is ideal. However, due to difficulty in obtaining objective behavioural indicators, there may only be opportunity to collect data via self-report behavioural indicators.

Self-Reports of Injury and Workers Compensation Claims

Absenteeism is typically highly related to the amount of sick leave and overtime taken by workers (O'Brien-Pallas *et al.,* 2001). However, how general practitioners in Australia have dealt with work-related stress tends to vary depending upon a number of factors. These factors include the level of knowledge the GP has of occupational

stress and of specific legislative requirements for making a compensation claim, reluctance on the part of a GP to involve employers in compensation claims for concern of breaching patient confidentiality, and the adversarial nature of the workers compensation system (Russell & Roach, 2002). GPs without training or experience in occupational stress may advise patients in the first instance to take time off work, or encourage about one half of patients to initiate a workers compensation claim. Among other GPs with training and experience, patients are often advised not to take time off work, although the option of encouraging patients to make workers compensation claims still remains (Russell & Roach, 2002).

In relation to occupational health and safety, over 60% of nurses in Europe reported concerns about different aspects of their physical work conditions. Over 15% of health care workers in Poland, Italy and France indicated that they had had an accident involving an injury, and almost 60% of German, Slovak, Italian and French health care workers, and under 40% of Dutch, British and Norwegian health workers reported a musculoskeletal disorder in the back, limbs or other body part. More senior workers were found to be less prone to these injuries, possibly because they may perform more cerebral rather than physical tasks as compared with less experienced workers.

Mental disorders (including depression and anxiety), sleep disorders such as insomnia, and stress accompanied a musculoskeletal disorder (MSDs) for almost half of the sample (possibly sequelae of a primary injury). Whilst almost a quarter of health care workers in Poland, France and Germany declared having a mental disorder, concerns about making errors produced a 71% increase in the development of mental disorders after adjustment of age, gender, occupational level and MSDs. This was further increased when coupled with emotional exhaustion. This is partly due to the increase in cognitive overload (a consequence of fatigue, sleep deprivation and/or extended shifts), considered to lead to cognitive failure and increase in errors. Uncertainly regarding equipment, lack of relevant information, interruptions, workplace violence and dissatisfaction regarding quality of care also contributed to the prevalence of mental disorders (Bongers, Winter, Kompier & Hildebrandt, 1993; Duffield & O'Brien-Pallas, 2003).

1.13.2 General psychological strain

Occupational stress

Current research on occupational stress utilises a broadly conceptualised framework and investigates relationships between personal, psychosocial and environmental factors on physical and mental well-being. These relationships are typically classified into stressors and stress responses (strains), and may be influenced by third variables or intervening variables. Third variables may be present when the same method is used to measure both stressor and strain variables and this can lead to the problem of common method variance particularly when self-report methods are used. Examples of third variables frequently reported in research are social desirability, acquiescence, or negative affectivity. Third variables also comprise variables typically classed as 'noise' as well as other variables independent from methods used, such as education, sex and age (Zapf, Dormann & Frese, 1996).

Basic theoretical and empirical questions concerning organisational stress must be addressed before it is possible to know how, and if, interventions will be effective and whether changes can be made to improve circumstances for employees, organisations and society (Briner & Reynolds, 1994; Ivancevich, Matteson, Freedman & Phillips, 1990). In other words, interventions should be evidence-based (Briner, 1997; Briner & Reynolds, 1994). According to Briner and Reynolds (1994, p. 659) 'studies need to be designed so that the links between changes in objective job conditions, changes in subjective perceptions of those job conditions, and changes in employee well-being (including negative states and behaviours) can be clearly examined and the causal relationships between them explored'.

Nurses are recognised as being particularly vulnerable to occupational stress, anxiety and depression (Workcover Corporation SA, 1998-2006). Both trained and student female nurses have declared distress beyond female community norms, with 41% of trained psychiatric nurses and 67% of student nurses scoring highly on the General Health Questionnaire for distress (Jones & Johnston, 1997). A meta-analysis of workplace stress in nursing, focusing on the years 1985-2003, reported workload,

leadership/management style, professional conflict, emotional cost of caring, lack of reward, and shiftwork as the main sources of stress (Vicar, 2003).

Nursing work itself may also lead to affective strain due to the exposure to serious illness and death (Gray-Toft & Anderson, 1981). Nurses who are particularly vulnerable when faced with a lack of support as well as the perception that one has not sufficiently contributed to improved quality of life for patients (Beaver *et al.*, 1986; Behar, 2003; Dara Ogus, 1990; Duffield & O'Brien-Pallas, 2003; Melchoir *et al.*, 1997; Oginska & Estryn- Edwards *et al.*, 2001; Tyler & Ellison, 1994; van der Shoot, Schaufeli, 1999).

Elements of the work environment of hospital nurses that contribute to occupational stress include constant interruptions, low staff numbers and resources, and errors in performance of work systems (Rump, 1979). Other salient stressors for nurses include constant time pressure, maximum workload and low staffing levels and unexpected periods of overtime work (Patrick & Lavery, 2006), inadequate training or relationship difficulties with medical staff (Bratt, Broome, Kelber & Lostocco, 2000; Hillhouse & Adler, 1997).

An indication of the complexity of the working environment, as faced by nurses, is highlighted Tucker and Spear's (2006) study. In their longitudinal study, Tucker and Spear used primary observation of 11 U.S. hospital nurses, interview data of 6 nurses and surveys of 520 nursing staff from 48 nursing units from 21 hospitals. Nursing staff observed an average of 8.4 work system failures per 8-hour shift, with the most frequent types of errors that contributed to 6.4 of the obstacles including medications, orders, supplies, staffing and equipment. The average task time was only 3.1 minutes and nurses were interrupted mid-task an average of 8 times during a shift.

Every working environment (whilst taking into account individual variation) will differ with regard to factors such as organisational culture and social and political climate. It is therefore reasonable to hypothesise that there may be differences in 'stress' between particular nursing specialties and units within an organisation. Some studies that have sampled nurses working from different specialty areas have assumed that the results can be generalised to all nurses (Healy & McKay, 2000; Stordeur,

2001). However, the degree of occupational strain vary depending upon the speciality area because of differences in nursing experiences, the nature of stressors as well as the job demands and resources (LeBlanc & Schaufeli, 2003; Tyler & Ellison, 1994; Ullrich & Fitzgerald, 1990; Vicar, 2003).

For example, intensive care nurses have been found to rate coping with 'death and dying' as a greater source of stress than medical or surgical care nurses, who in turn, rank workload and staffing issues as the most stressful issues (Vicar, 2003). Other studies have shown that theatre nurses rank emotional elements of their job as less critical than those working in a liver unit in haematology or oncology (Tyler & Ellison, 1994; Vicar, 2003). Lee (2003) found that primary care nurses had lower stress levels, utilised more direct coping strategies, and perceived themselves as healthier than their acute care nurse counterparts. Cronin-Stubbs and Rooks (1985) investigated stressors in critical care, psychiatric, operating room, and medical nurses, and found significant differences in occupational stress between these work settings. Critical care nurses experienced more affirmation than psychiatric nurses and operation room nurses obtained more aid in their work than psychiatric nurses.

Oncology Nursing is considered to be one of the most stressful areas of nursing and one which is most likely to lead to problems such as burnout, job dissatisfaction, and poorer psychological and physical health (Donnelly & Zevon, 1998). Some of the significant stressors in oncology nursing include having to administer intense cancer treatments, deal with the death of patient or ethical and moral issues concerning the care of patients, and having to maintain close relationships with patients in long term care (Felton, 1998; LeBlanc & Schafeli, 2003; Ullrich & Fitzgerald, 1990).

Aside from variations that may be expected between different nursing specialities it also important to acknowledge the important role of individual variation. Stress perception is highly subjective, and coupled with the complexity of nursing practice, there may be variation between nurses in terms of the types of stress identified. These variations in perceived stress may result from differences in the skills and experience of individual nurses, or how they cope with stress, their age, or the level of social support available to them (Vicar, 2003). For example, although

nurse managers may perceive more work stressors associated with their role, they may also have greater support available to them and can develop more effective ways to cope with stress because of their greater experience (Duquette, Kerouac, Sandhu, Ducharme & Saulnier, 1995; Tyler & Cushway, 1992).

1.13.3 Psychological well-being

Empirical studies on job satisfaction

'Job satisfaction is the degree to which a person reports satisfaction with intrinsic and extrinsic features of the job' (Warr, Cook & Wall, 1979, p. 133). In Warr, Cook and Wall's (1979) Job Satisfaction scale, *Total job satisfaction* is determined by examining the sum of all individual Job Satisfaction scale items, and *overall job satisfaction* is reported satisfaction with the job as a whole'. It is now well established that job satisfaction does not lie on different continuum from stress or burnout as was previously assumed, but is generally accepted that individuals who report high levels of stress also usually report dissatisfaction with at least some aspects of their jobs (Jones & Bright, 2001). According to Koy (2001) and Wright (2000), employee job satisfaction is imperative for effective organisational performance and morale. Indeed, Koy's longitudinal study of directional effects revealed a significant relationship between employee satisfaction and organisational effectiveness.

The importance of job satisfaction in nursing was examined in a national study conducted throughout Australia and New Zealand by Best Practice Australia. The study involved over 31,000 nurses in 110 public and private health care organisations during 2001 and 2002. Nurses were found to be most likely to remain in the nursing profession if they perceived their work to be enjoyable (Parle, 2003) and this experience was more likely to occur when the professional had better working conditions for staff. When workloads are satisfactory, both staff and patient satisfaction tend to be higher (Leiter *et al.,* 1999), but this those who remain in the profession are faced with higher workloads, more overtime, double shifts and greater interaction with agency and casual staff (Duffield & O'Brien-Pallas, 2003). An increase in casual and part time staff has meant that current full time workers are having to work around those on fixed part-time shifts. This experience has led to less

control and predictability in the work and, as a result, poorer job satisfaction. Job dissatisfaction is a likely consequence (Baumann, 2001; Creegan, Duffield & Forrester, 2002; Duffield & O'Brien-Pallas, 2003). Higher and more intense workloads also reduce nurses' ability to provide quality patient care, a finding that has been replicated across many different studies in several countries (Aiken, Smith & Lake, 1994; Duffield & O'Brien-Pallas, 2003; O'Brien-Pallas, Duffield & Hayes, 2006; Duffield, Roche, O'Brien-Pallasm Diers, Aisbett, King, Aisbett & Hall, 2007).

Job satisfaction was examined in all 10 European countries included in the European Nurses Early Exit study (NEXT). Nurses working between 5-10 years indicated the lowest job satisfaction scores and satisfaction scores were higher if people had higher levels of education, presumably because this equated to higher status positions with greater control or autonomy. The major reasons for dissatisfaction to strong dissatisfaction (in order of importance) were low monetary reward, lack of psychological support (the primary reason for France), physical working conditions, lack of opportunities to give patients the care they need, lack of work prospects, staff handovers when shifts change, and the way abilities are used. These factors are important to identify because many could be subject to amelioration through greater resources. Another source of dissatisfaction for more than half of the sample was a lack of psychological support in relation to the emotional demands of the job. Having appropriate support from colleagues is considered essential, as pointed out by Estryn-Behar, Nezet and Jasseron (2004, p. 8):

> *'Given the emotional involvement, stress, work constraints and role uncertainly, the need for talking things through with supervisors and colleagues is strong. When it comes to situations of psychological distress, colleagues appear to be the most important source of support.'*

A similar view is expressed by Duffield & O'Brien-Pallas (2003, p. 188) in regard to Australian nurses:

> *'Unfortunately even within the profession, at times of peak activity there is often less understanding and consideration provided to colleagues…than is desirable.'*

Nursing is an emotionally satisfying occupation on the whole, particularly if emotional care is recognized and remunerated (Staden, 1998). It is imperative, then, that the current circumstances do not impinge on resource factors that contribute to nurse job satisfaction, including emotion work performance, which is often overlooked by management in preference for other more visible or tangible needs. As Duffield and O'Brien-Pallas (2003, p. 188) state:

> *'While patients may respect the work of nurses this is often not enough. The lack of respect for nurses' work by administrators, coupled with the lack of influence over how work is to be undertaken, are significant factors in nurses' decisions to remain in the workforce.'*

Empirical studies on organisational commitment and affective commitment

High affective commitment refers to 'employees emotional attachment to, identification with, and involvement in, the organisation' (Allen & Meyer, 1990). Various job resources, (i.e., job control, and participation in decision making) predicted organisational commitment in Bakker, Demerouti, de Boer and Schaufeli's (2003) study. Affective commitment also acts as a resource for both the individual and for organisations. Higher employee organisational commitment is related to lower turnover levels, and in turn, better productivity for an organisation (Lee & Henderson, 1996; Leiter & Maslach, 1988), whereas high professional commitment is linked to better general health and high job satisfaction, provided that it does not interfere with non-working life and psychological functioning (Hasselhorn, 2004).

For nurses, high affective commitment is associated with increased organisational and professional commitment, respectively (Hasselhorn, 2004). A majority of nurses indicated high affective commitment for their workplace (scores between 40-60, with a score range of 0-100), as well as high affective commitment to the profession (scores between 80-100) in the NEXT study, using Allen and Meyer's

(1990) affective commitment scale. Higher affective commitment was reported by nurses working in smaller institutions, more by women than men, and by nurses 55 years or over. Registered nurses with at least a 5-year tenure reported the highest affective commitment to their institution, whereas those with higher qualifications had less commitment to the profession. Amongst nurse managers, affective commitment scores were generally high, but only for those with nursing management experience. Other reasons provided for low affective commitment were health problems such as poor quality supervision and social support from supervisors, work to home conflict, low pay rates, lack of reciprocity and burnout. Lee and Henderson (1996) also support that high affective commitment, leading to intent to stay, is positively related with organisational support.

Although organisational commitment is not restricted to work with patients, responses from Stordeur *et al.* (2003) (part of the NEXT study, see Appendix 2.1) seem to suggest that working with patients is a main motivator for nurses. Further, fifty two percent of the sample in indicated that they currently work as a nurse in order 'to work with people.' This suggests that nurse commitment would probably be reduced if nurses were deprived of the opportunity to interact with patients due to the need to attend to other tasks. In this connection, research has shown that nurses working in hospital settings have the lowest organisational and professional commitment in comparison to those working in nursing homes, out of home care and outpatient care, where patient interaction is generally less frequent (Stordeur, D'hoore, van de Heijden, Dibisceglie, Laine & van de Schoot, 2003).

As a moderating variable, organisational commitment is reported to alter the effect of emotional demands, such as negative emotion suppression on job satisfaction (Jones, 2000). In Jones' study, employees working within two divisions of a large private hospital with a high degree of internalised commitment to the organisation experienced greater job satisfaction, notwithstanding demands to suppress negative emotions, than those with lower internalised commitment (Jones, 2000).

1.13.4 The psychological effects of emotion in the workplace on individual and organisational level outcomes

Emotion labour and emotion work

As discussed above, one particular source of strain for nurses is the significant emotional demands of the profession. Indeed, over the past two decades recognition of the role of emotions in the workplace as well as in family contexts has increased dramatically. However, emotional demands are still a relatively hidden component of work (Briner, 1999; James, 1989; Wharton & Erickson, 1993; Zapf, 2002; Zapf, Vogt, Seifert, Heidrum, & Isic, 1999). Emotional aspects of work previously received less recognition as a potential stressor compared with physiological, biomedical and technological concerns of work in the health care professions (Philips, 1996; Skilbeck & Payne, 2003). This is despite the fact that occupations involving people work are perceived to be emotionally demanding or taxing (Brotheridge & Grandey, 2002), and that emotion labour is performed in almost two thirds of workplace communication (Mann, 1999).

Given that emotion affects nearly all factors of work behaviour and is present in many workplace situations, the study of emotion at work should routinely be incorporated into existing research in organisational psychology (Briner, 1999). This is particularly true for nursing staff, whose work often involves the expression of many different types of emotions at varying levels of intensities. Effective nurse management of emotion at work is likely to impact upon nurse performance and capacity to cope with the demands of nursing work. Similarly, emotional skills are pivotal to everyday managerial work. The expressed emotions of managers can have a impact on organisational climate, employee's emotions, staff performance and ultimately, organisational success (Brotheridge & Lee, 2008).

Although the terms emotion labour and emotion work have been used interchangeably to refer to the same concept, emotion labour and emotion work will be defined as separate concepts in this thesis. Previous research is largely focused on the concept of emotion labour rather than emotion work. The next section will focus primarily on emotion labour demands, as well as emotion management strategies used

during emotional expression on the job. A discussion of the emotion work construct will follow.

Emotion labour

First coined by Hochschild (1983, p. 7) in referring to work of Goffman (1959), emotion labour:

> *'requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others… this kind of labour calls for a coordination of mind and feeling, and it sometimes draws on a source of self that we honour as deep and integral to our individuality…the possible cost of doing the work: the worker can become estranged or alienated from an aspect of self – either the body or the margins of the soul- that it used to do the work.'*

Emotion labour occurs (a) in face-to-face or voice-to-voice interactions with clients, (b) when emotions are displayed in order to influence others' emotions, and (c) when the display of emotions is in adherence to particular display rules (Hochschild, 1983; Morris & Feldman, 1996; Zapf, 2002). Morris and Feldman (1996, p. 987) define emotion labour as 'the effort, planning, and control needed to express organisationally desired emotion during interpersonal transactions.' Ashforth and Humphrey (1993, p. 90) define emotion labour as 'the act of displaying the appropriate emotion during a service transaction,' whereas Zapf (2002, p. 238) argues that the concept of emotion labour refers to 'the quality of interactions between employees and clients,' where client denotes 'any person who interacts with an employee, for example, patients, children customers, passengers, or guests.' In this thesis, emotion labour will be defined according to Ashforth and Humphrey's (1993) definition in addition to the extended notion that service providers perform emotion labour for the benefit of the organisation in lieu of the individual interaction partner.

Emotion labour was scarcely studied among healthcare occupations until the last decade (Henderson, 2001). One reason for this lack of attention was that there was some disagreement between researchers about what defines emotion labour as

well as the dimensions of the construct (Mann, 1999). For example, Morris and Feldman (1996) conceptualise emotion labour as the experience of emotional dissonance as a direct result of external expectations. According to Morris and Feldman, the greater the frequency, duration, intensity and variety of emotion display, the more emotion labour an individual is performing. The authors state that the existence of all the above dimensions is not required to encapsulate emotion labour, although they suggest that one dimension is insufficient (Mann, 1999). Furthermore, in terms of the variety dimension, Morris and Feldman acknowledge that, because the display of particular emotions among some occupational groups can be restricted, a significant variety of emotional display may not always be observed.

Zapf and Holz's (2006) conceptualisation of emotion labour comprises the following components: (1) the requirement to display positive emotions, (2) the requirement to display negative emotions, (3) the requirement to be sensitive to client's emotions (thereby requiring more effort in both performance and adequate sensitive response to feedback expressed by an interaction partner), and (4) emotional dissonance.

Due to these variations in conceptualisation, difficulty has arisen with regard to theoretical underpinnings and measurement of the construct, including defining concepts, deriving hypotheses, and interpreting findings (Grandey, 2000; Mann, 2005). The way in which emotion labour has previously been conceptualised and measured may explain why links between emotion labour and stress or burnout are inconsistent between studies. These contradictions remain challenges for future research (Brotheridge & Lee, 1998; Grandey, 2000).

The dimensions of emotion labour proposed by Morris and Feldman (1996, p. 989) are frequency, duration, intensity and variety of emotional display, and emotional dissonance. The *frequency* of emotional display is the most examined component and refers to the 'frequency of interaction between service providers and clients'. A longer *duration* of emotional display will require more effort in the form of emotion labour. The *intensity* of emotional display denotes the strength with which an emotion is experienced or expressed, whereas the *variety* of emotional display pertains to the notion that the greater variety of emotions displayed, the greater

emotion labour performed. Finally, *emotional dissonance* relates to a requirement to express organisationally desired emotions not genuinely felt by the service provider. These factors resemble job requirements (Brotheridge & Lee, 1998; Grandey, 1998; Kruml & Geddes, 1998; Zaft *et al.*, 1999).

An outcome of emotion regulation is emotional dissonance. Emotional dissonance may lead a service provider to experience emotional conflict in the sense that experienced emotions are contrary to organisational display rules[6], based on normative expectations. Emotional conflict, arising from emotional dissonance, is further demarcated into acting in bad faith and acting in good faith. An employee may act in bad faith by performing emotion labour because they feel they have to, whereas acting in good faith refers to performing emotion labour because one feels it is the right thing to do (Mann, 2005).

Although the notion of emotion regulation was originally a subject for the developmental psychology literature, the concept is increasingly referred to in the adult psychology literature (Gross & Munoz, 1995). Emotion regulation refers to either regulation by virtue of emotions, or the regulation of emotions, and derives from the idea that emotions prompt particular responses (behaviour and mental processes) to environmental stimuli. Regulation of emotions is used in the study of emotion labour in order to address how management of the experience and expression of emotions in an individual and others affects emotional responses (behavioural, subjective, or physiological) (Gross & Munoz, 1995).

Two broad classes of emotion regulation are antecedent-focused and response-focused emotion regulation. Antecedent-focused emotion regulation refers to the process of blocking the expression of emotion before it occurs by blocking out emotive thoughts or controlling the environment to make this happen (e.g., making the interactions with patients more objective or impersonal). Response-focused

[6] The performance of emotion labour is prompted by the existence of organisational display rules, which are defined as 'norms for expression and suppression of emotion,' or the expectation of emotional expression or suppression. Organisational feeling rules, as labelled by Hochschild (1983), refer to 'organisational norms about emotional expression on the job,' and are facilitated by formal and informal socialisation practices that aim to establish and maintain a desired organisational façade (Rafaeli, 1989, p. 385; Rafaeli & Sutton, 1987). Selection and socialisation practices are used to emphasise displayed emotions, whereas informal socialisation practices allow for teaching employees organisational norms with regard to emotional expression on the job (Rafaeli. 1989).

emotion regulation refers to responses that occur after emotions have been generated. In this process, emotional responses are altered to be consistent with the desired emotion display so that an external observer might not be aware of the person's true emotions. Examples of response-focused regulation include masking or hiding feelings (Gross & Munoz, 1995) whenever this is appropriate.

Similar ideas, although different terminology, are used by Hochschild (1979, 1983) who argued that emotion labour is either performed via surface acting or deep acting. Surface acting refers to management of:

> *'the expression of behaviour rather than feelings…accomplished by careful presentation of verbal and non-verbal cues such as facial expression, gestures and voice tone in a way in which the person knows that they are only acting.'*

Deep acting pertains to 'the actor attempting to actually experience or feel the emotion they are expected to display. Feelings are actively induced as the actor 'psyches' him/herself into the desired persona' (Mann, 2005, pp 304-305). The service provider may either replace inappropriate emotions with emotions desired by the organisation (surface acting), or suppress emotions deemed inappropriate by the organisation and replace them with appropriate emotions (deep acting). Surface and deep acting are referred to as emotion labour regulation strategies.

A relatively novel concept, emotional harmony refers to 'a different kind of emotion labour, that of masking or dampening felt emotions, rather than supplanting them with different ones' (Mann, 2005, p. 311). In effect, the service provider may experience emotions that appear to be in line with feeling and display rules, although on a deeper level than is psychological healthy. The provider may therefore decide to neutralise felt emotions in order to manage or moderate development of health-related outcomes. Hochschild's (1983) emotion management strategies: automatic regulation, surface acting and deep acting, resemble subjective determinants of emotion regulation. In effect, these dimensions represent the psychological processes that occur during emotion management (Zapf, 2002).

In addition to lack of conceptual clarity of the emotion labour concept itself, clearer demarcation between emotion labour requirements and emotion labour regulation strategies is desired (Kruml & Geddes, 2000). A clear conceptual distinction between requirements and strategies must therefore be made, given that these concepts are conceptually and empirically distinct. Empirical research on emotion labour requirements and regulation strategies, respectively, are discussed and evaluated below.

Emotion labour requirements and emotion labour regulation strategies

As researchers such as Adelmann (1995) could not find the expected negative relationship between emotion labour performance and psychological strain, research in the area of emotion labour was re-focused to the dimensions of emotion labour introduced by Morris and Feldman (1996) (i.e., frequency of emotion display). Additional emotion labour requirements include the type of emotion expressed or suppressed, such as expression or suppression of positive and negative emotion, respectively, as well as sensitivity of emotions expressed (Zapf, 2002).

One should take note of the context in which emotion labour requirements and regulation strategies, respectively, are being used. As Zapf (2002) suggests, a focus on objective work requirements allows for emotion labour requirements to be assessed without the input of workers.

The negative consequences of high levels of emotional labour

Until the last decade, few studies examined the relationship between emotion labour and burnout. Past research on burnout failed to examine emotional aspects of work, as these were taken for granted when emotional job requirements were measured (Zapf *et al.*, 1999). Inconclusive evidence remains as to whether emotional labour makes an unique contribution to the explanation of burnout scores (Zapf *et al.*, 2001). Nevertheless, there are studies that have confirmed a link between the frequency of patient or client contact and emotional exhaustion (Zapf, 2002). Studies also support the hypothesis that people working in emotionally demanding jobs characterised by a higher frequency and intensity of interpersonal interactions, experience burnout to a greater degree, either directly or indirectly (Brotheridge & Grandey, 2002; Cordes & Dougherty, 1993; Grandey, 2003). For mental health nurses, more emotion labour

(linked to nurse stress) is reported with an increase in intensity and variety of emotional display than an increase in duration or frequency of emotional display (Mann & Cowburn, 2005; Morris & Feldman, 1996).

Other negative consequences of emotion labour performance include general dissatisfaction, estrangement between one's self and true feelings (Hochschild, 1983), role overload (Wharton & Erickson, 1993), lack of work identity, and lack of openness with co-workers (Mann, 1999). A host of literature spanning from 1960-1988 continues to report both psychological and physical consequences for inhibiting emotions, including neurotic and psychotic symptoms and hostility, hypertension and coronary heart disease (Mann, 1999).

Other indirect effects of high emotional demands have been identified. An example of the potential for indirect effects is the case where organisational problems create a negative environment, leading to conflicts with clients that would not necessarily have occurred (Zapf *et al*., 2001, 2002). For example, time pressure, frequency and duration of employee-client interactions, social support (Skillbeck & Payne, 2003), role conflict, role ambiguity, and negative affectivity may operate as mediators influencing relationships between various emotion demands and outcomes (Janssen & Bakker, 2003; Zapf, 2002).

Research has also shown that the nature of the emotional labour can influence the nature of outcomes. Ashforth and Humphrey (1993) suggested that only sincere expressions have beneficial outcomes for employees. Emotional consonance (or genuinely feeling organisationally desired expressions) positively relates to life satisfaction (Mann, 2005). By contrast, it is generally found that expressions of negative emotion relate to all three major burnout dimensions. However, this finding is not confirmed by Zapf and Holz (2006). In relation to expressions of positive emotions, the research is more equivocal. Feigning both positive emotions and suppressing negative emotions (via emotional dissonance) are positively related to emotional exhaustion (Aldemann, 1995; Schaubroeck & Jones, 2000; Tschan, Rachat & Zapf, 2005), whereas positive emotion display via emotional consonance or deep acting is linked to positive psychological health outcomes, including a feeling of self-efficacy, personal accomplishment, feelings of affiliation, status, and recognition for

performance of alturistic behaviour (Aldemann, 1995; Biefhoff, 1990; Tolich, 1993). For example, an employee may enjoy feelings of satisfaction resulting from entertaining or otherwise pleasing customers. Along with this, the interaction partner may show reciprocity in the form of positive feedback, which may in turn, positively influence the experience of the employee.

The role of emotional dissonance

One reason why emotion work can lead to stress is when people experience dissonance (Zapf, 2002). Gross and Levenson (1997, p. 102) state: 'For a variety of reasons, there may be times when it is vital to dissociate the emotions we feel from the behaviour we express'. Suppressing negative emotions while receiving expression of negative emotions from a communication partner is more likely to be effortful than the experience and expression of positive emotions. Regulating one's emotions in order to allow the ability to express positive emotions while experiencing negative feelings is a dual task where one is not only displaying incongruent felt emotions, but also expressing job congruent emotions (Zammuner *et al.*, 2003). This mismatch between the experience of negative emotions and a requirement to display positive emotions (emotional dissonance) is a threat to one's authenticity, and in turn, to one's self-image (Bortheridge & Lee, 2002), and is frequently associated with negative outcomes both directly and indirectly. These outcomes include poor health adjustment, poor coping responses, psychological strain, and burnout (Abraham 1998; Bakker, 2003; Bakker & Heuven, 2004; Brotheridge & Lee, 1998; Heuven & Bakker, 2003; Gross, & Munoz, 1995; Kruml & Geddes, 2000; Morris & Feldman, 1997; Schaubroeck & Jones, 2000; Zapf & Holz, 2006).

It is recognised that individuals may frequently suppress negative emotions in order to prevent reduced cognitive performance and interruptions to successful social interaction. It is also often considered a wiser alternative for an individual to resist expressing negative emotion, (i.e., in situations of preventing violence), or for the benefit of receiving reciprocity in terms of positive affective display that will likely improve social interaction (Gross & Levenson, 1997).

However, it is known that the sympathetic cardiovascular system is negatively activated during the suppression of emotions (Gross & Levenson, 1997). Emotional

inhibition that is ongoing and inflexible with the social environment may reduce adaptive ability to respond to the environment. Assuming that cognitive capacity is limited, emotion-expressive display monitoring (i.e., surface acting) may drain an individual of resources and make additional tasks more difficult to complete. Constantly suppressing emotion may also restrict alerting an interaction partner about an individual's needs and preferences, so that it may reduce the likelihood of corrective behaviour being undertaken to alleviate the negative effects of the interactions (Gross & Leveson, 1997). In its most extreme form, maladaptive emotional regulatory effort can be linked with major depressive disorders (Gross & Munoz, 1995).

A study conducted in a large private hospital in the United States on participants who had spent on average 80% of their working day interacting with others and two thirds interacting with patients found that demands to suppress negative emotion were linked with job dissatisfaction. In addition, Tschan, Rochat and Zapf (2005) used a diary method in an event-sampling approach for which 78 employees in service and non-service occupations reported 848 task-related social interactions over the course of one week. An interview and a self-report questionnaire followed. Emotion work requirements and reactions of emotion dissonance were recorded. The duration of interactions were at least ten minutes and the proportion, as opposed to the frequency of interactions, was used as the principal measure in order to provide for the fact that many interactions may not be experienced as stressful. Overall, a greater amount of emotional dissonance was recorded among interactions with customers than with co-workers.

Apart from the careful design of the measures, a strength of the study was the highlight of the importance of emotion labour in interactions between colleagues as well as between workers and clients. Interestingly, 85% of all interactions between colleagues were authentic with respect to required emotional display, suggesting that workers either felt the emotions they were required to display and/or did not experience dissonance when faking. Employees from service occupations reported a higher level of emotion demands and this was attributed to a greater level of client interactions. The well-being of employees was lower in interactions involving emotion requirements, even when the felt negative emotion was controlled (Zapf,

2002). A limitation of this study was the relatively small sample size and the fact that many customer-related interactions were less than 10 minutes duration, so that the study did not necessary sample all potentially relevant interactions.

Heuven and Bakker's (2003) study examined the link between emotional dissonance and burnout over and above psychosocial stressor variables of Karasek's (1979) demand-control model in cabin attendants. Using SEM-analyses, they found that emotional dissonance had an independent and greater contribution to burnout than the job demand and control variables of Karasek's model. This is a noteworthy finding in terms of the potential impact of emotional dissonance on health outcomes.

A particularly strong study conducted by Zapf, Seifert, Schmutte, Mertini and Holz (2001) examined emotion labour variables in conjunction with classic work environment and social variables. The Frankfurt Emotion Work Scales (FEWS) was used to examine five dimensions of emotion labour: Requirement to express positive emotion, Requirement to display negative emotion, Sensitivity requirements (empathic or knowledge about client's feelings), Interaction control and Emotional Dissonance. Findings include an unique contribution of emotion labour variables in the prediction of burnout. Emotion labour requirements contributed to dimensions of burnout in both positive and negative directions, depending on the type of emotion labour performed. Interaction effects between emotion dissonance and other organisational and social stressors revealed exacerbated effects of emotional exhaustion and depersonalization. For instance, positive or negative emotion display, coupled with emotional dissonance significantly contributed to emotional exhaustion, whereas expression of positive or negative emotions with interaction control (control over interactions), coupled with emotional dissonance contributed to depersonalisation. Lastly, expression of positive emotion and sensitivity, coupled with emotional dissonance contributed to personal accomplishment. In general the explained variance for emotion work variables was higher than for social stressors and demographic variables, although was lower than the explained variance for work environment stressors.

Apart from a large sample (N=1,241), the strengths of the study include sampling from a variety of occupational groups, demarcation of types of emotion

labour, as well as investigation of emotion work variables in conjunction with organisational and social variables. Weak points include the cross-sectional design, lack of satisfactory internal consistency scores. However, the authors assert that a longitudinal study design would not have been useful given that established theoretical concepts and reliable and valid empirical measures of emotion labour are limited. In addition, the impact of performance of emotion labour in non-work life on burnout was not considered, and potential confound variables, such as negative affectivity were not controlled (Zapf *et al.*, 2001).

Emotion labour regulation strategies and health outcomes

Surface acting and deep acting

The majority of researchers note that surface acting has negative effects on health. For example, research supports the role of surface acting as a mediating variable between emotion labour and burnout (depersonalisation and emotional exhaustion) (Brotheridge & Grandey, 2002; Brotheridge & Lee, 2002; Grandey, 2003; Kruml & Geddes, 2000; Totterdell & Holmann, 2003; Tschan, Rochat, & Zapf, 2005). Surface acting is more important predictor of emotion labour than deep acting, and not surprisingly, is also more strongly related to job dissatisfaction than deep acting (Grandey, 2003; Mann & Cowburn, 2005).

The findings in relation to the influence of Deep Acting on outcomes are mixed. Some studies report that performance of deep acting has positive effects, such as personal accomplishment (Brotheridge & Grandey, 2002), while other studies report negative effects (Brotheridge & Lee, 2003). Deep acting is likely to be selected as an emotion regulation strategy when internalisation of work roles via social support and co-worker and supervisor influence is encouraged (Brotheridge & Lee, 2002). The emotion regulation strategy of deep acting is by definition, more closely related to automatic or spontaneous emotion display, or emotional consonance, than surface acting. Deep acting may therefore be moderately to strongly associated with the concept of emotion work (see below). Deep acting is strongly associated with wellbeing and role-specific satisfaction, such as depression, psychological stress and job dissatisfaction in a negative direction (Erickson & Wharton, 1997; Grandey, 2003).

Long term performance of surface acting is likely to have a more damaging effect on an individual than deep acting due to a loss of self-identity and alienation from the self (Wharton & Erickson, 1993). In addition, a greater propensity to experience emotional dissonance, linked to emotional exhaustion, is likely with performance of surface acting. However, an individual using deep acting may also experience negative health outcomes over a longer term. It follows, then, that the causal link between deep acting and emotional exhaustion should be weaker than the link between surface acting and emotional exhaustion (Grandey, 2003).

Grandey (2003) found that, whilst surface acting positively related with emotion exhaustion, deep acting did not once surface acting was controlled, providing more credence for the claim that the experience of emotional dissonance is reduced in the performance of deep acting. Although this study had an adequate gender balance to the composition of the sample, there were some limitations. These included: 1) low questionnaire return rates; 2) the potential for bias where peer-observer rates were used in lieu of manager-observer rates; 3) a ceiling effect of good person-environment fit for employees working for a longer duration in the organisation; 4) a cross-sectional design; 5) limited investigation of interactions between emotion labour performance and individual difference variables as well as with other well-known predictors of emotional exhaustion; and 6) the extent to which 'acting' with customers differed from 'acting' with co-workers and supervisors in terms of antecedents and consequences (later tested by Zapf *et al.*, 2005). Grandey (2003) also asserts that employees should be advised that not all forms of acting will equally contribute to the same health outcomes. Given that deep acting performance appears to result in fewer negative consequences, training in developing this regulation strategy is encouraged.

Studies that have combined emotion labour requirements and regulation strategies include Brotheridge and Grandey's (2002) study that compared the two perspectives of people work, namely job-focused emotional labour and employee-focused emotional labour on burnout. Job-focused emotion labour refers to the display of emotions desired by the organisation (i.e., emotion labour requirements), whereas employee-focused emotional labour refers to how an individual regulates feelings to display or express particular emotions (e.g., using emotional regulation strategies,

such as surface or deep acting). The authors used bi-variate correlations and hierarchical regressions to interpret whether employee-focused emotional labour strategies such as surface and deep acting had an influence on burnout before the addition of job-focussed emotion labour variables and negative affectivity.

Brotheridge and Grandey (2002) found that the frequency, duration of customer contact, intensity, variety of emotional expression, and having to show empathy and friendliness to customers all had positive associations with personal accomplishment. This did not support previous assumptions that higher frequency of customer contact would be more stressful. These dimensions of emotional display may therefore operate as either resources or stressors for employees. Surface acting was related to depersonalisation as well as a diminished sense of personal accomplishment, whereas deep acting related to personal accomplishment. The addition of employee-focussed variables fully mediated the relationship between job-focused emotional labour variables (e.g., frequency of customer contact) and depersonalisation.

This research is convincing because it considers the contributions of both individual and organisational perspectives of emotion labour to burnout. No earlier study had made comparisons between these two perspectives in a single study. The study also controlled emotion labour requirement variables, as well as negative affectivity. However, the utilisation of a cross-sectional design meant that direction of causality could not be ascertained. Nevertheless, the study does highlight a need for occupational stress research to consider the examination of emotion labour requirements and regulation strategies beyond other types of organisational stressors.

Emotion work: Definition and importance

Although previous research has examined the performance of emotion labour as a work demand or expectation, it is also important to expand upon this work by examining a second element of emotional expression that appears to be associated with different motivations. This second element, labelled, emotion work, is likely to relate to work in the health care professions, such as nursing, where often unrecognised emotion care for individual clients is maintained. Himmelweit (1999, p. 1) describes the notion of often unpaid, low paid**,** or unrecognised emotion labour as

'caring labour.' In this context, caring labour is referred to as a particular form of emotion labour, though emotion labour does not encompass 'caring labour':

> *"I have argued that caring labour is a form of emotional labour because it requires both the emotion of caring about and the activity of caring for another person. However, not all emotional labour is caring labour because the latter involves the development of a particular sort of relationship."*

Strazdins (2000) extended the original definitions and concepts of emotion labour by suggesting that employees not only regulate their own emotions, but also attempt to regulate the emotions of others as well via behaviours that create positive inter-personal relationships. Strazdins (2000, p. 41) describes emotion work as:

> *'behaviours performed to improve the emotional wellbeing in others and to create cooperative and positive social relationships…(It) is intentional and goal directed, with the focus on those who strive to produce positive emotions in others and to repair or regulate negative emotions in others. The term also encompasses behaviours intending to integrate and harmonise social relationships…'*

Strazdins (2000) constructed an Emotional Work Inventory (EWI) scale that included three sub-constructs: Companionship, Help and Regulation (each engendering different behaviours). Companionship refers to enhancing others' positive emotions (e.g., happiness, pride, love) and maintaining 'social integration and contact'. Help refers to assisting others' negative emotions, (e.g., anger, sadness, fear) 'by listening attentively, soothing, intervening, and temporarily taking the load off others when they are stressed' (p. 41), whereas Regulation is described as 'regulating others' emotional control, encouraging others to improve their wellbeing and persuading them to stop risky or self-destructive behaviour…regulation of relationships requires limiting behaviours that disrupt social harmony, and is frequently enacted by parents, and in the workplace, by managers' (p. 41-42). It is therefore assumed that Help and Regulation may be more demanding, challenging, and stressful to perform than Companionship.

The Emotional Work Inventory (EWI) asks about forms of emotion work performed either at work or at home. Strazdins (2000) found that when both work and family roles were observed together, such as workmate, service worker, managerial, spouse, parent, extended family member, and friendship, more emotion work was performed in family roles than in work roles. Overall, women performed more emotional work than men. This finding, as well as previous findings and discussion papers (England & Folbre, 1999; James, 1989; Steinberg & Figart, 1999) suggest that there is a gender difference in the performance of emotion work. Strazdins proposes that the performance of emotion work in the form of companionship will likely to lead to positive health outcomes, whereas emotion work performance in the form of negative emotion expression, (e.g., help or regulation performance) will lead to negative outcomes for the performer. Strazdins applied these concepts to Australian healthcare workers (one study), as well as the conceptualisation and validation of a scale to represent emotion work (including similar factor structure and high internal consistency between studies), using a cross-sectional design.

As discussed above, emotion work is the performance of emotion labour with a different motivation. In the workplace, the distinction between emotion labour and emotion work is that unlike emotion labour, emotion work is performed for the benefit of the recipient in lieu of the organisation. For these reasons, emotion work is often a voluntary and effortful form of expression that is related to a meaningful relationship forged between the provider and the client or patient and positive social interaction. Due to the altruistic nature of emotion work, emotion work is likely to be more strongly linked with authenticity of emotional expression than emotion labour.

The nursing profession involves the use of both emotion labour and emotion work (Zapf & Holz, 2006). Zapf (2002) suggests that nurses are required to express a variety of emotions at work such as sympathy, empathy or friendliness, while Bolton (2001, p. 85) states, ‘perhaps one of the most enduringly popular conceptions of an occupation requiring extensive emotion work is nursing’. General nurses (Henderson, 2001; Staden, 1998; Rafaeli & Sutton, 1987), mental health nurses (Mann & Cowburn, 2005), oncology nurses, (Escot *et al.*, 2001; Le Blanc & Schaufaeli, 2003), psychiatric nurses (Tilley & Chambers, 2003), gynaecology nurses (Bolton, 2000) and

hospice nurses (James, 1992) are among some of the nursing specialties previously investigated.

As compared with doctors, nurses provide a substantial degree of emotional care. Of the staff sampled in Bolton's (2001) study, two statements are highlighted. One nurse states, 'doctors are detached from that sort of thing and leave nurses to pick up the emotional pieces' (p. 90), while a medical practitioner argues, 'feelings can get in the way if you're trying to make a diagnosis…you've got to try and remain objective. It's better to get on with the medicine and let the nurses deal with the emotions' (p. 91). In addition, the notion of caring for patients in a holistic sense (i.e., inclusive of emotional care) is one of the top reasons for entrance into the nursing profession (Parle, 2003).

The performance of emotional care is imperative in facilitating a patient's journey through their illness and recovery (Mann, 2005). Previous research suggests that nurses perceive care, particularly emotional care, as fundamental to cure, in addition to physiological components (Henderson, 2001). Emotional elements of caring are best nurtured through the acquisition of complex interpersonal skills, and through formal and systematic training. Interpersonal skills and formal training should be based on theoretical and empirical knowledge (Henderson, 2001; Phillips, 1996; Staden, 1998). However, emotional care 'remains undefined, unexplained and usually unrecorded' (James, 1989, p. 19). The performance of emotional care is therefore invisible, given that specific training or education may not be provided; instead, nurse knowledge of complex interpersonal and emotional management skills may be acquired from life skills and experience on the job (Smith, 1991).

Contextual factors in the performance of emotion work

The context in which an individual works will influence the type and amount of emotion labour or emotion work performed. For example, there may be times when performance of emotion labour is more fitting than emotion work. Examples would include situations in which there is a risk that over-involvement with a client may have detrimental effects on a service provider, or during instances where no other alternative to emotion labour performance is possible. Another factor may be the type of relationship between interaction partners. The performance of emotions for the

sake of the organisation is likely to lead to different outcomes as compared with emotional expression that is produced in relation to clients with whom nurses have developed a longer-term relationship.

Another factor is the philosophy of the organisation itself. As a result of the adoption of business models of health care by many hospitals, the explicit demand for task-orientated care can commonly result in nurses spending less time with patients. Although this may suit nurses who prefer to perform task-orientated care, the inability to develop meaningful relationships with patients, as entailed in a more holistic philosophy of care (James, 1992; Smith, 1991), may be inimical to many other nurses who value the more 'human' side of the profession. As a consequence, nurses may feel that emotional care is not valued by society or management personnel, and is only valued by nurses themselves (Bolton, 2001; James, 1992; Henderson, 2001; Staden, 1998).

It is also important to consider circumstances in which emotion labour is performed in lieu of emotion work, given that performance of emotion work is predicted to result in positive health outcomes in nurses, compared with emotion labour performance. If availability of social support from supervisors is anticipated to be low, nurses may apply blocking behaviours when interacting with patients in order to avoid emotional disclosure. However, once practical help and supervisor support is assured, blocking behaviours may significantly decrease (Both, Maguire, Butterworth & Hillier, 1996). For example, for nurses dealing with serious illness, palliative care and emotional issues of patients, their families and fellow palliative care workers, overlooking emotional traumas in favour of physical symptoms, such as drug therapies and other treatments may be a strategy used in order to avoid resource loss and procure protection. Blocking behaviours not only disallows patients to express their emotions and make sense of their experiences, but may also affect their well-being, and in turn, the well-being of their family members. In situations such as these, it is suggested that clinical supervision of nurses may assist, although little data exists in support of this claim (Jones, 1999). It is unclear whether nurses may block particular types of emotional expression with patients: 1) so that task-orientated care may be completed in minimum time, 2) due to lack of training in emotion

management, or 3) due to a preference to provide minimal emotional care during nursing work (i.e., personality, or due to experience of depersonalisation).

Inequity in the professional-recipient relationship with regard to investments made (e.g., time, patience, effort) and feedback received by human service workers (e.g., appreciation and gratitude) may effect emotional exhaustion, according to a one-year longitudinal study conducted in the Netherlands (van Dierendonck & Schaufeli, 2001). It is therefore imperative that human service professionals do not consistently experience inequity in their interactions with recipients in order to avoid development of emotional exhaustion.

In another study, nurses adopted several strategies to prevent becoming over-burdened or drained. Nurses provided accounts and experiences of professional and personal bereavements while using two metaphors that underpin how emotions and the body are understood in today's society from a social-constructionist perspective – the 'body as a container' and 'emotions as energy'. To describe containment of emotions, 'switching on and off' (switching off once they leave work) 'hardening' (creating a veneer) and 'standing back' (mental distance) were strategies used; Preventing excess emotions from entering their container, creating an impermeable barrier, and mentally distancing from emotional threats were motivations (Froggatt, 1998).

Emotion labour regulation in the form of surface acting may be the only available form of emotional expression during short-term nurse-patient interactions. As a consequence, nurses may feel alienated due to experience of emotional dissonance. However, reciprocity can be achieved during nurse-patient interactions that encourage meaningful relationships over time. Researchers contend that the longer a relationship exists between employees and clients, the more likely rewarding relationships, inclusive of emotional attachment, and in turn, authenticity will emerge. As a result, a decrease in performance of emotion labour may occur (Brotheridge & Lee, 2002; Kruml & Geddes, 2000; Schaubroeck & Jones, 2000; Tschan *et al.*, 2005). This is particularly likely to occur when relationships with patients are viewed as a favourable element of the job. For example, Landeweerd and Boumanns (1988) compared three psychiatric departments differing in length of stay. Low work

satisfaction and lower scores emerged for health and stress for staff working in the short-stay department, compared with higher scores for those in admission and long-stay departments. A similar study was conducted and in a Cardiac Care Unit and a general surgical ward of a general hospital. However, given the small sample size and methodology that did not test validity and reliability, these results should be applied with caution (Edwards & Burnard, 2003).

To summarise, the performance of emotion labour in lieu of emotion work by nurses is likely to occur under three conditions:

1) when during an interaction between a nurse and the patient, a lack of reciprocity is experienced by the nurse. A nurse may avoid expressing more emotion than is necessary, as part of a coping mechanism. According to the Conservation of Resources Theory (discussed in Chapter 2), nurses may attempt to avoid resource loss and to protect existing resources;
2) when confronted with difficult or emotionally demanding patients; and
3) with time pressure to perform tasks, resulting in a nurse having little time to provide 'invisible' and unrecognised emotional care that is often associated with the development of relationships with patients. Nurses may be encouraged to place cognitive and physical tasks at higher priority than tasks associated with emotional care.

<u>The role of nursing speciality and emotional expression</u>

Another important contextual factor is the effect of nursing speciality area on nurse emotion labour or emotion work performance. As discussed earlier in this chapter, this issue is important given that different types of nursing speciality are associated with specific types of demands (including emotional demands) and resources which can, in turn, lead to varying health outcomes (LeBlanc & Schaufeli, 2003; Ullrich & Fitzgerald, 1990). For example, in some wards it may be imperative that healthcare workers devote time to psychiatric patients without interruption (Estryn-Behar, Nezet & Jasseron, 2004), whereas a more detached approach may be more appropriate in nursing other contexts, such as during surgery.

CHAPTER TWO
THEORETICAL AND ANALYTICAL FRAMEWORKS

2.1 Introduction

This chapter reviews and evaluates the work stress/strain concept via theories of work stress commonly applied among health care workers in the literature, so as to provide a rationale for the theories of occupational stress/strain chosen for investigation in this project.

2.2 Theories of occupational stress

At present, there is no overarching theory that is available to explain and predict occupational stress. A number of frameworks have been advanced to elucidate the associations between various individual and organisational characteristics and outcomes. These models have had either a broad or specific scope targeting many individuals, groups or organisational level variables, or have included only a few key variables. Although the models to be discussed in this chapter do not include every possible framework that has been advanced, most of the major and empirically investigated approaches are summarised. These include Person-Environment Fit Theory, the Cognitive phenomenological theory of stress and coping, The Job Demand-Control-Support (DCS) Model, the Effort-Reward Imbalance Model (ERI), Burnout Theory, the Job Demands-Resources Model (JD-R), The Conservation of Resources Theory (COR), Emotion Regulation Theory (Gross, 1998), and Action Theory.

2.3 Person-Environment Fit Theory

Previous theoretical work on motivational processes by Lewin (1951) and Murray (1938) formed the foundations of Person-Environment Fit theory, originally compiled by French and colleagues (French & Kahn, 1962; French *et al*., 1974), and later developed and refined by Caplan (1983, 1987), Harrison (1978, 1985) and Edwards (1996) (Edwards & Cooper, 1990; Ganster & Schaubroeck, 1991). Person-Environment Fit Theory proposes that perceived job stress is a measure of the degree of fit, or congruence, between the individual and the environment (e.g., job dissatisfaction, anxiety, depression, and absenteeism) (Edwards, Caplan & Van Harrison, 1998). A discrepancy score is calculated to reflect the goodness of fit

between the subjective person and the subjective environment on the *needs-supples* and *demands-abilities* combinations. The discrepancy score predicts job stress, with a greater discrepancy indicating greater levels of stress (Dollard, 1996). *Demands* consist of quantitative and qualitative job requirements, such as job complexity, longer hours, additional responsibilities and role expectations, and group and organisational norms, whereas *abilities* include aptitudes, skills, training time, and effort required for an individual to meet demands. *Needs* include innate biological and psychological necessities, and motivation to achieve tasks, whereas *supplies* encompass extrinsic and intrinsic resources (e.g., food, shelter, money, social involvement and the opportunity to achieve) and rewards obtained to fulfil an individual's needs (Edwards, Caplan & Van Harrison, 1998).

This theory differentiates between objective representations of the person and the environment which comprise attributes of the person and situations and events that exist independently of an individual's perceptions, and subjective representations of the person and the environment which involve the person's own perception of his/her attributes, as well as situations and events (Edwards, Caplan & Van Harrison, 1998). The objective person and the environment is considered to be causally related to their subjective equivalents, although influenced by perceptual distortions as well as structures that limit access to objective information in the workplace (Edwards, Caplan & Van Harrison, 1998).

Four types of conditions pertaining to links between personal and environment constructs are predicted, including objective P-E fit (the fit between the objective person and the objective environment), subjective P-E fit (the fit between the subjective person and the subjective environment), contact with reality (the extent to which the subjective environment is congruent with the objective environment), and the accuracy of self-assessment (equivalence between the objective and subjective persons) (Figure 2.1).

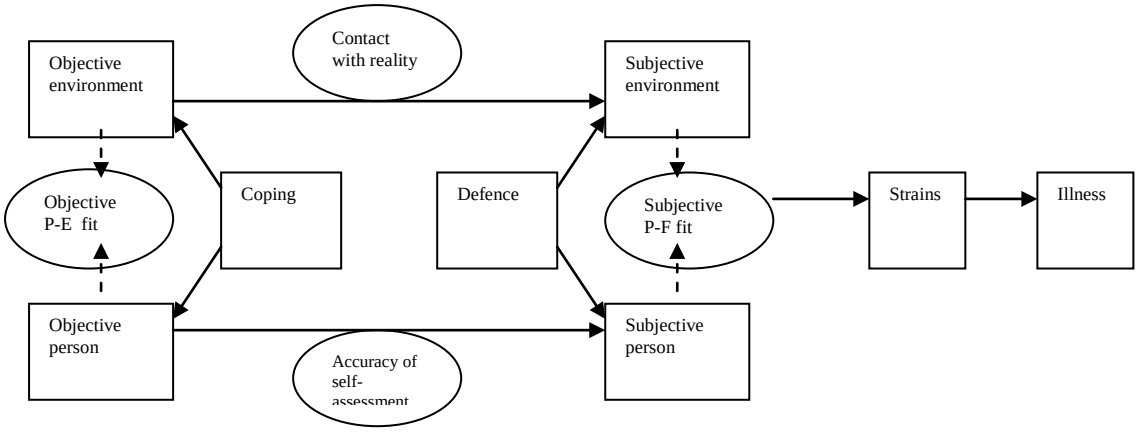

Figure 2.1. A model depicting Person-Environment Fit Theory. Adapted from Edwards, Caplan & Van Harrison (1998). Person-Environment Fit Theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (Ed.), *Theories of Organizational Stress*, (pp. 28-67). New York: Oxford University Press.

Note. Concepts, within circles represent discrepancies. Solid lines refer to direct effects. Broken lines indicate interaction effects.

Once P-E misfit has occurred, two outcomes are proposed. These are psychological, physical and behavioural strains, which may lead to illness, and coping and defence strategies. Of particular relevance are behavioural strains, which include smoking, overeating, absenteeism and frequent use of health care services. Coping efforts amount to strategies which try to improve objective P-E fit by either changing the person or by changing the environment. Defence, on the other hand, involves an alteration of the subjective person of the environment, by imagining the environment to be different (e.g., repression, projection or denial) in order to enhance subjective P-E fit. It is thought that defence strategies, although seemingly inferior to practical coping efforts, can be useful when the objective person or environment cannot be altered. Both coping and defence strategies are effectively implicated in reducing P-E misfit and strain (Edwards, Caplan & Van Harrison, 1998).

P-E fit theory was very prominent in the 1970s, although was no longer the dominant influence in the work stress literature of the 1980s (Ganster & Schaubroeck, 1991). Early studies that have investigated similar concepts to P-E fit, and therefore provide evidence for the P-E fit model, include studies examining need satisfaction

that tested the difference between needs and supplies in predicting job satisfaction. However, the majority of these studies failed to take over-supply into account as few respondents reported excess supplies. Other studies that were designed to test P-E fit theory include direct tests of P-E fit theory and studies of the joint relationship of the person and the environment with strain (see Dollard, 1996 for a review).

The most all-inclusive studies designed to test P-E theory were conducted by French *et al.* (1983) and Caplan *et al.* (1975), using a random stratified sample of 318 workers in 23 occupations. Together with studies conducted by Locke (1969), House, (1972), Harrison (1976) and Kulka (1976), these studies supported P-E fit theory by revealing curvilinear relationships between P-E fit dimensions and strain (Dollard, 1996; Edwards, Caplan & Van Harrison, 1998). Caplan's study also reveals a link between P-E fit and psychological, and to a lesser extent, physiological and behavioural strains, particularly for needs-supplies fit dimensions. All three relationships predicted by P-E fit theory (i.e., monotonic, asymptotic and U-shaped) were confirmed. Interestingly, the results of Caplan's study found that fit scores were better predictors of strain outcomes than isolated person (P) or environment (E) components.

However, the predictive power of the P and E component measures highlighted in House (1972), Harrison (1976) and Kulka's (1976) studies, has been questioned in that variance in strain is expressed by variables other than those postulated in the P-E Fit model. Given this evidence, practical application of the theory with respect to the discrepancy score between E and P measures has been questioned.

The orientation of P-E fit theory toward broad mechanisms leading to strain neglects categorisation of specific work characteristics that may be more influential in the development of strain. Most studies have been confined to only a narrow range of variables to assess 'needs-supplies' fit, despite the fact that there may be many other important organisational factors that are not taken into account. One notable omission in this regard is decision latitude as a discrete variable in the model (Dollard, 1996; Ganster & Schaubroeck, 1991). Others have argued that the theory is largely

atheoretical and that discrepancy scores have only limited explanatory value (Blau, 1981, cited by Dollard, 1996).

As for the Cognitive transactional theory of stress and coping discussed below, a theoretical criticism of the model is the emphasis on subjective misfit when stimuli of the work environment may also apply to objective misfit (Baker, 1985; Dollard, 1996). In addition, the theory assumes that good P-E fit indicates no stress, whereas stress can also occur due to stagnation, loss of drive or development (Edwards, Caplan & Van Harrison, 1998).

Other methodological problems include the low reliability of P-E Fit measures which may confound of the effects of person and environment on strain. The theory also has unclear predictive power. It is uncertain whether an observed relationship between P-E fit and strain is a product of the influence of the person or the environment independently rather than P-E fit, or whether the function imposed is supported by the data obtained. Therefore, the results of the studies reviewed by Edwards (1991, cited by Edwards, Caplan & Van Harrison, 1998) are inconclusive. However, in defence of the theory, it has been argued that the latter finding might be an artefact of methodological difficulties rather than any inherent problems with the theory itself (Dollard, 1996). Theories which focus on person and environment variables measured independently may become more useful in explaining the data obtained. Other methodological and conceptual shortcomings of the theory and recommendations for future research using the theory are noted in Edwards, Caplan and Van Harrison (1998).

2.4 Cognitive phenomenological theory of stress and coping

Lazarus' work was at the heart of stress research two decades since it had begun and continued to be popular by the early 1990s. The cognitive phenomenological model of stress is based on the work of Lazarus (1966) and his colleagues, including Coyne and Folkman. Since its development, the theory has been refined and expanded from an emphasis on the continuous, reciprocal nature of the interaction between the individual and the environment (where the individual and the environment continually affect each other), to a meta-theoretical depiction of emotion and coping processes (Schwarzer, 2001). This transactional (relationship-based), process, contextual, and

meaning-centred (meaning given to events) theory of stress and coping had originally changed the face and perspective of occupational health psychology. In this way, it has been described as 'a blessing to psychology' (Schwarzer, p. 400).

The theory requires that researchers take into account individual differences due to the understanding that both motivational and cognitive variables are likely to mediate the stressor and reaction relationship. Lazarus (1990, 2001) argues that traditional empirical methods and frameworks are no longer suitable to the understanding required of emerging researchers in the field. He states that the stimulus-response model of psychology that emerged in the rise of behaviourism is not broad enough to include a range of phenomena and an approach to understanding behaviour associated with cognitive psychology (Cooper & Dewe, 2004).

2.4.1 Cognitive appraisal and coping

Cognitive appraisal and coping are the two processes argued to mediate stress and consequences of stress, respectively (Cooper & Dewe, 2004; Dollard, 1996). The theory in its original form encompasses two types of interdependent appraising: primary and secondary, and two types of coping: problem-focussed and emotion-focused.

The term 'primary appraisal' refers to an individual's evaluation of the significance of a transaction between the individual and the environment to well-being. If a transaction is deemed irrelevant, no negative or positive consequences, respectively, will result. If the situation is appraised as stressful, it may be appraised as incurring harm, loss, or damage, threat of loss or damage, challenge (an opportunity for growth, development or gain), or benefit (Cooper & Dewe, 2004; Lazarus, 1999, 2001). The theory defines stress as 'a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being' (Schwarzer, 2001, p. 401). Lazarus suggests that both positive and negative appraisals may occur within the same transaction, although one or the other usually dominates. Cognitive appraisals may be influenced by situational factors, such as novelty, predictability, event uncertainty, controllability, temporal focus, and ambiguity, and result from defensive processes (Dollard, 1996; Lazarus & Folkman, 1984).

Secondary appraisal is a process in which an individual focuses on how to cope with a stressful transaction using available coping resources. However, this process is not coping itself, despite using coping as its foundation (Cooper & Dewe, 2004). Coping responses, as opposed to coping resources, are cognitive and behavioural efforts targeted toward minimising the impact of internal and/or external demands (Folkman, 1984, cited by Dollard, 1996). Situational determinants, cognitive appraisal and personality are significant determinants of the coping process (Dollard, 1996).

Problem focussed coping, refers to 'cognitive problem solving efforts and behavioural strategies for alerting or managing the source of the problem,' whereas emotion focussed coping is defined as 'cognitive and behavioural efforts directed at reducing or managing emotional' distress' (Folkman & Lazarus, 1980, pp 224-225, cited by Cooper & Dewe, 2004). Problem focussed coping approaches are viewed as more adaptive as they seek to target stressful situations and implement solutions directly. Emotion focussed coping is on the other hand, viewed as maladaptive given that the external problem remains unresolved and is therefore likely to persist in the long term (Cooper & Dewe, 2004).

This general theory of stress, which focuses on the bi-directional transaction between the person and the environment, applies a methodology that constrains work stress to the individual level (Hobfoll, 1989; Taris, Peeters, Le Blanc, Scahfeli & Schreurs, 2001). Like the P-E fit model, a major theoretical premise is that cognitive appraisal and coping of stress and emotion are based on the interaction between the person and the environment, rather than individual and environmental factors separately. However, some limitations of the theory include the difficulty that stressors at the organisational level that are outside of perception are unrecognised due to the sole premise that an individual evaluates and copes with particular organisational contexts at an individual level. Recommendations and plans of action in the face of stressors at the organisational level (e.g., poor job design) are therefore not emphasised, and this places limits on the effectiveness of any intervention. There is also lack of generalisability in terms of how individuals interact with and respond to

their work environment, as well as knowledge with regard to social or group behaviour (Dollard, 1996).

Hobfoll (2001) argues that Lazarus presents a highly subjective appraisal theory and argues that Lazarus' theory, like Selye's (1950) General Adaptation Syndrome, depicts stress as reactive and focuses on the outcomes of the stress process. By contrast, Hobfoll argues that, while subjective appraisal is the 'best proximal indicator on the individual level of stress' it remains difficult to analyse appraisals and rely on the individual's perspective, at the expense of insights gained from an analysis of groups and systems. In addition, Hobfoll believes that cognitive appraisal theories may lead to limited knowledge or neglect enquiry about why individuals make particular appraisals, the extent to which appraisals are automatically over-learned, as well as the extent to which appraisals are culturally conditioned or shared.

In response, Lazarus (2001) asserts that individual variation precludes the validity of normative group measures, as well as the notion of 'objective' reality, as 'objective' reality is merely no more than subjective group consensus. To advance Lazarus' three different kinds of stress appraisal: harm/loss, threat and challenge, Hobfoll (1998) introduces the concepts of resource-based loss and gain spirals (or caravans). This relates to the notion that it is the change in resources that is the most stressful for individuals, not simply the lack of resource availability (Hobfoll, 2001a; Schwarzer, 2001).

Finally, another difficulty is that conscious and unconscious cognitive processes, as well as process measures of coping, are difficult to measure and test empirically. As a result, research on cognitive mediation and coping has been subject to criticism. Parking and Manstead (1992) argue that cognitive mediation may not be the principal factor in emotional arousal, and suggest instead that arousal may also be influenced by social networks. According to Cooper and Dewe (2004), the continued use of psychometric inventories to measure the process of coping that encompass only two classifications of coping include ambiguous items that are too simplistic, diverse or vague.

2.5 The Job Demand-Control-Support (DCS) Model

The Job Demand-Control (JD-C) model became the dominant influence in the occupational stress literature in the 1980s once P-E Fit theory began to lose favour among stress researchers (Ganster & Schaubroeck, 1991). The JD-C model could be considered an advancement on P-E Fit theory as it is based on P-E Fit theory, although it includes an additional focus on job redesign and sociological principles involving interactions at the organisational level.

The JD-C model was originally proposed by Karasek (1979), to which Johnson (1986) added the variable social support, later labelled the Demand-Control-Support model (DCS). Job demands are broadly defined as psychological stressors, such as working at a fast pace, working intensely under time constraints, a high workload, and work conflict. Job decision latitude refers to worker's authority to make decisions on the job (labelled decision authority), as well as use of variety of skill on the job (labelled skill discretion). Social support at work is defined as an overall experience of helpful social interaction received from both co-workers and supervisors (Cooper, 1998; Dollard, 1996). The JD-C model was later refined by Theorell and Karasek (1996) and introduced the variables physical exertion, job insecurity, and hazardous exposure.

Focused on work content, the theory posits that the constructs job demands, control/decision latitude and social support vary independently within the work environment to the extent that different combinations of these variables (at high and low levels of each variable) produce different outcomes (Cooper & Dewe, 2001; Ganster & Schaubroeck, 1991). Eight job combinations are proposed. The iso-strain hypothesis suggests that strain is the result of high demands, low control and low social support. Iso-strain is characterised to hold the highest levels of psychological and physical health symptomatology, such as psychological stress and cardiovascular complaints (de Jonge & Kompier, 1997; Dollard, 1996). Statistically, this situation is usually depicted by an interaction effect. Conversely, a job low in psychological demands, high control and high social support is predicted to produce the lowest levels of strain.

The second major hypothesis for the JD-C and DCS models is that work motivation, learning and development opportunities occur under the condition of high psychological demands, high decision latitude and high social support. Similarly, the opposite condition: low social support, low decision latitude and low demand enables a 'passive' working circumstance, whereby minimal to moderate work demands may elicit stress responses comparative to the state of 'learned helplessness' (de Jonge & Kompier, 1997; Dollard, 1996; See Theorell (1998) for review of the four combinations predicted by the JDC Model).

A number of studies have been conducted to investigate the validity of this model. For example, a study using the JD-R model, focusing on four home-care workplaces, found that job resources buffered the impact of job demands, such as workload, physical demands and harassment from patients on emotional exhaustion when home-care workers lacked resources such as autonomy, opportunities for professional development, and performance feedback (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003b). Bakker, Demerouti and Euwema (2003) found, in a study of 1,000 employees of a higher education, that those with lower autonomy, social support, less supervisory coaching and feedback, greater job demands had greater burnout (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003b).

In effect, the notion that job demands and (or the lack thereof) resource characteristics contribute to emotional exhaustion and disengagement, and in turn, poorer job performance is generally supported (Bakker, Demerouti & Verbeke, 2004). The contention that several individual or organisational properties may buffer the effects of stress and burnout has enabled the JD-R model to provide a suitable explanation for interaction effects commonly found in stress research. The buffer hypothesis of the model also appears to overlap with other models such as the Conservation of Resources (COR) Theory (discussed below). However, as with other models, additional research is required in order to elucidate specific variables (at either the individual or organisational level) that moderate the effects of specific demands on outcomes.

A difficulty with research involving this model is that there may be differences in variation explained by the three variables decision latitude, demand and social

support. Although the construct, decision latitude, is often well suited to measurement using a general working population sample, measures of this construct can have limited variation in smaller homogenous samples. However, psychological demands and social support are typically explained via individual variation (de Jonge & Kompier, 1997; Theorell, 1998). This may be due to previous non-specific conceptualisations of psychological demands, control and social support. Salient demands, control and support needs may differ between occupations. As Van der deof & Maes (1999, p. 109) state:

> *'Depending on the specific demands of a job, an employee may need specific corresponding types of control and social support to cope with these demands. This suggests that occupation-specific measurement of demands, control, and support could improve the explanatory and predictive power of the DCS model.'*

The DCS model also appears to be sensitive to inter-country differences, as well as age.

A second common criticism is that model interactions contribute little variance in health outcomes, including psychological strain. Karasek (1989) has defended this claim by pointing out that specific health outcomes such as clinical depression and coronary heart disease (CHD) are rare in the general working population, so that it may be difficult to obtain large interaction effects due to limited variability in the measures.

Other common criticisms include the simplicity of the model. Whilst the model is far from complete with regard to providing a framework to explain occupational stress, Karasek contends that it may be used broadly as a practical and interdisciplinary first step in a multi-step process. He asserts that studying specialised variables instead of the general decision latitude and psychological demands variables acts to remove generalised variables' associations with strain. In effect, the simplicity of the model may reduce the fragmentation often prevalent in occupational stress research (Ganster & Schaubroeck, 1991).

Another major criticism relates to measurement issues, in particular with regard to the excessive use of self-report measures (for which the majority of support for the model lies). A widely acknowledged contention is that cross-sectional studies may result in strong common method effects, a potential for conceptual overlap between predictor and outcome variables, confounding, as well as a lack of interactive effects (Dollard, 1996; Van der doef, & Maes, 1999). Excessive self-report testing of the model provokes criticism that the model represents a cognitive or psychological theory, instead of a sociological theory, given that individual level variables are considered and modelled directly in lieu of a direct focus on organisational level measures. It is also suggested that both quantitative and qualitative psychological demands be distinguished, particularly for service workers. However, alternative measures (e.g., observer ratings) are also used (Van der doef & Maes, 1999). Use of objective indices of strain as well as time-lagged measures, have improved support for the JD-C model (Dollard, 1996).

A further methodological criticism relates to testing of moderator effects for the purpose of observing interaction effects. Studies (including longitudinal studies) using social support as a moderator on psychological strain have produced inconsistent results. For the JD-C model, about one half of studies have examined job control as a moderator in the relationship between psychological demands and well being, supporting the buffer hypothesis. In other studies, evidence for the buffering hypothesis has been found only in subpopulations most likely to benefit from an alteration of control in their jobs. This was particularly so where personality and individual coping characteristics were concerned, and this supports the contention among stress researchers that personality characteristics very likely moderate relationships between stressors and strains.

Finally, although an interaction effect is the most common interpretation of Karasek's (1979) position, research from epidemiological literature instead supports an additive effect. Statistical models using *a priori* comparisons when testing interaction effects, as well as exploration of non-linear as well as linear relations between variables (in order to rule out a possible explanation for non significant effects) are suggested alternatives that should also be explored (Van def deof & Maes, 1999).

2.5.1 Studies on autonomy

Johnson and Spector (2007, p. 332) assert *'The strength with which autonomy alleviated the negative outcomes and contributed to the positive outcomes marks it as an essential variable in the service context, worthy of further consideration.'*

Job control, decision latitude, and autonomy are terms that are often used interchangeably in the occupational health psychology literature. However, the general definition of decision latitude is distinct from other concepts of control, and refers to a combination of factors, labelled authority over decisions and skill discretion, respectively. Definitions of autonomy may therefore vary, depending on the description of items within a measurement scale. The term autonomy will be used to refer to either of the above definitions.

As noted in section 2.6.2, the findings of studies testing the Demand-Control-Support model are mixed. Although the interaction hypothesis is not always confirmed (Elasaaa & Veiga, 1997; Van Der Doef & Maes, 1999), support for the DCS model has been obtained in studies of health care workers (Johnson *et al.*, 1995; Van Der Doef & Maes, 1999).

Other studies have examined autonomy in isolation or as part of a group of variables when examining the influence of individual and/or organisational factors on health outcomes. Job autonomy holds a well-established relationship with employee health (de Jonge, Peeters, Hamers, van Vegchel & van der Linder, 2003). Employee autonomy is positively associated with a longer lifespan, because it is associated with a significantly decreased risk of cardiovascular mortality, as well as decreased sickness absence, self-reported disease and physiological and psychological strain symptoms (Elovainio, Kivimaki, Steen & Vahtera, 2004; Karasek & Theorell, 1990). However, Bultmann, Kant, VanDen Brant and Kasl (2002) found that autonomy was only a protective factor for men against the impact of psychological demands (including physical and emotion demands) on the onset of fatigue.

As discussed in Chapter 1, with the ageing population and an ageing workforce taking their toll on Australian nurse turnover (Australian Bureau of

Statistics, 2005), reduced autonomy may serve to intensify the nurse shortage issue (Andrews & Dziegielewski, 2005). Given the top-down hierarchy of many hospital settings, autonomy may be a salient factor affecting the job satisfaction and occupational strain of nursing staff. A perception of high autonomy is associated with job satisfaction, lower predicted patient death rates, lower risk of adjusted patient length of stay and lower nurse turnover. Thus, nurse acquisition of autonomy may indirectly improve patient outcomes (Aiken, Clarke, Cheung, Slone & Silber, 2003; Laschinger, Shamian & Thomson, 2001). The public view of nurse autonomy may also affect the profession's ability to attract new recruits as well as retain existing nurses (Bloomfield, 1999).

In a NEXT European nurse retention study, Widerszal-Bazyl, Radkiewicz, Hasselhorn and Conway, (2003) used a job control measure, inclusive of the factors 'influence at work' and 'possibilities for development,' (with demonstrated internal consistency) to investigate links between Karasek and Theorell's (1990) job demand, job control and social support model, and causes of nurse turnover. They did not, however, investigate the DCS interaction. Although the majority of nurses reported being satisfied with the way their abilities were used, autonomy was low when compared with normative groups. Autonomy scores were highest for Norwegian, British, Dutch and Belgian nurses. For nurses in Great Britain, high autonomy appears to be effective in reducing job strain. However, a limitation of Widerszal-Bazyl *et al.*'s research is that four of the eight items that formed the factor 'influence at work,' developed specifically for the study, were not previously validated.

Canadian Geriatric nurses in Duqette, Kerouac, Sandhu, Ducharme and Saulnier's (1995) study were asked how much control they had over forward planning. A hierarchical regression analysis showed that autonomy was a significant determinant of burnout. However, in regression models, beta value for the autonomy variable was lower than for commitment, avoidance, social environment and physical environment factors, peer cohesion, support from supervisors, and active cognitive coping methods.

2.5.2 The role of social support

Social support has been defined as 'some benefit derived from social interactions that assists recipients coping with stressful life circumstances' (Winefield, Winefield & Tiggemann, 1992, p. 200). However, Winefield, Winefield & Tiggemann (1992, p. 200) urge that the meaning of social support and benefit of supportive behaviours be derived from attention to the source as well as the type of support, given that 'the meaning of potentially supportive behaviours by others varies according to the source of the world-be support.' The concept of social support is widely acknowledged for its alleged contribution to the reduction of negative consequences such as physiological disease, or the mechanisms by which disease can occur, and similarly for its positive effects on psychological wellbeing and health (Jones & Bright, 2001; Moore & Mellor, 2003). In fact, some studies have indicated that social support attributes more variance in health outcomes than work-related variables such as demand and control, or life stress variables including general health, financial distress or negative life events (Winefield, Winefield & Tiggemann, 1992; Fletcher & Jones, 1993). As a result, social support has played a substantial role in occupational stress models and theories of the last few decades (Kahn & Byosiere, 1992).

Many authors support the contention that the quality of interpersonal relationships with colleagues is key to job satisfaction (Farrell & Dares, 1999; Van de Hijden & Kuemmerling, 2003; Stordeur *et al*, 2003). Conversely, negative associations between interpersonal relationships and psychological distress, absenteeism and turnover have been found (Bultmann, Kant, VanDen Brant & Kasl, 2002; Tett & Myer, 1993; Van de Hijden & Kuemmerling, 2003). For women, social support is a protective factor against the impact of psychological demands on the onset of fatigue, including physical and emotion demands.

Social support from colleagues and supervisors is a valuable resource that management may be able to influence to improve the working life of service workers. Social support may take the form of adequate feedback, communication, and learning (Van de Hijden & Kuemmerling, 2003). In this context, knowledge may be transferred informally and/ or socially. In addition, in each working organisation, one's peers must bear the responsibility of providing reliable information on current

technical developments, for example by drawing one's attention to useful new research journals or training courses (Van de Hijden & Kuemmerling, 2003).

The availability of organisational support may serve to increase the genuine feeling of organisationally desired emotions, and may help workers cope with stress via the opportunity to talk to colleagues (Zapf *et al.*, 2001). Leiter and Maslach (1988), for example, investigated both interactions with co-workers and supervisors, and the influence these interactions may have on organisational commitment and burnout. The effects of both pleasant and unpleasant contacts were also assessed. Negative interpersonal work environments led to higher levels of emotional exhaustion. Unpleasant contacts with supervisors resulted in lower organisational commitment (this relationship was also mediated via emotional exhaustion), whereas pleasant contacts with co-workers related to higher organisational commitment. Workers with higher and lower scores of organisational commitment, respectively, were more likely to interact with like-minded co-workers. Social support therefore affects individual wellbeing through two different processes: (1) as a buffering effect, and (2) directly (Leiter & Maslach, 1998).

The effects (indirect and direct) or absence of effects of different types of social support, such as information support, instrumental support, emotional support, personal support, and professional support on both individual and organisational outcomes for employees generally as well as for nurses, were considered. However, in the interest of brevity this research is not included in this review (see Baruch-Feldman, Brondolo, Dena Ben-Dayan & Schwartz (2002), Bourbonnais, Comeau & Vazina (1999), Bowling *et al.*, (2004), Cohen & Wills (1985), De Jonge, Janssen & Breukelen (1996), Jones & Bright (2001), Kaufmann & Beehr (1986), Landsbergis (1988), Tyler & Cushway (1995), and Wortman & Dunkel-Shetter (1987) for review of research on the effects of social support on employees generally, and see Bourbonnais, Comeau & Vazina (1999), Winefield, Dollard & Winefield (2000), Dorr *et al.* (1980), Moore (2001), Moore & Mellor (2003), Tiley & Chambers (2003) and Woodward *et al.* (1999) for a review of the effect of social support on health care workers, including nurses).

Given that personality factors and preferences influence the formation of social connections, the quality of relationships and perceived availability and the adequacy of support, it is appropriate to consider the role of personality variables in studies of this nature because some associations have been identified between personality and social support (i.e., associations between neuroticism or sociability skills and social support) (Cohen & Wills, 1985; Parkes, Mendham & von Rabenau, 1994). For example, extroverted people tend to have high sociability as well as strong needs for communication due to a more outgoing, sociable, and talkative nature. This is contrasted with neurotic people, who tend to experience more negative moods, which in turn, may influence their social skill set, as well as their perception of social support (Gambor & Vas, 2008).

Despite general acceptance of the importance of social support, a remaining challenge for researchers in this field is to be aware of the conceptual difficulties associated with examining the effects of this variable. In general, most empirical work on the construct social support has been cross sectional, so that it is often difficult to confirm the nature of causality or the direction of effects. It may be that the perception that support is available on the part of employees may prompt support seeking, or that individuals experiencing job satisfaction may feel more comfortable seeking social support. Alternatively, it may be that the mere perception of availability and adequacy of social support that may positively influence psychological well-being. The distinction between actual and perceived availability and adequacy of social support, and the effects of either on health outcomes, is also a subject of some contention (Hobfoll, 2002).

2.6 Effort-Reward Imbalance Model (ERI)

Siegrist (1996, 1998, 2001) developed the Effort-Reward Imbalance Model (ERI), which proposes that strain results from an imbalance between effort expended in combating environmental constraints or threats, and rewards received in compensation for those efforts. Perception of reciprocity and fairness are therefore key factors that influence emotional distress, and therefore adverse consequences (Tsutsumi & Kawakami, 2004). The theory is considered to be similar to Vroom's (1964) expectancy theory of motivation (Dollard *et al.*, 2003). Examples of reward include money, esteem and job status control.

Further, an imbalance may lie in the difference between intrinsic efforts (personal characteristic of coping, including excessive striving with the desire of being accepted by peers, or over-commitment) and extrinsic efforts (ability to cope with job demands). For instance, young employees with intrinsic effort are more likely to have difficulty decreasing commitments in an organisational culture comprising a high level of psychological demands than those fostering extrinsic effort (Dollard, 1996). The notion that individual characteristic variables may explain unique variance in strain distinguishes the ERI model from the DCS model (Theorell, 1998). Calculations of the ratio between scores for effort and reward, respectively, are used to formulate a composite measure for effort-reward imbalance (Theorell, 1998).

For example, in a study of thirty-three Dutch health professionals and Dutch male white collar workers, Hanson, Godaert, Mass and Meijman (2001) and Vrijkotte *et al.* (2000) found that those with ERI had a higher frequency band of heart rate during a work day. Similarly, for those with low salary, lack of social approval, and fewer career opportunities relative to efforts required at work, ERI was the most prevalent (Kuper *et al.,* 2002), and predicted increased body mass index at a ten year follow up (Kivimaki *et al.,* 2002). Similarly, in a study of Dutch ancillary health care workers, of which 94% were female, the strongest effects of ERI were found when esteem was studied as a reward indicator (van Vegchel *et al.,* 2001), whereas de Jonge *et al.* (2000) and Tsutsumi *et al.* (2001) found that ERI was more prevalent among overcommitted individuals and those threatened by job loss. Lastly, indicators of ERI and high over commitment negatively affected shift workers more often than employees with daytime work (Peter *et al.,* 1999). See Tsutsami and Kawakami (2004) and van Vegchel, de Jonge, Bosman and Schaufeli (2005) for a review.

Although some support for this model exists, a major criticism of the Effort Reward Imbalance Model is that conceptualisations of effort (i.e., demands) and rewards (i.e., resources) are too general so as to not capture or allow opportunity to test specific types of efforts and rewards between occupational groups. The reliance on self reported symptoms and self-reported measures of effort-reward imbalance also pose a problem because of concerns about common method variance. The majority of evidence has also been derived from relatively small-scale or occupation specific

studies, so that the external validity of findings may be limited (Tsutsami & Kawakami, 2004). Little support has also been found for the existence of an interaction between effort and rewards (Aust, Peter & Siegrist, 1997; Irie, Tsutsumi, & Kobayashi, 2003; Van Vegchel *et al.* (2001); Xanthopoulou, Bakker, Dollard, Demerouti, Schaufeli, Taris, Schreurs, 2007). However, Bakker *et al*. found an interaction between ERI and high overcommitment for emotional exhaustion and personal accomplishment, and De Jonge *et al.* (2000) found that emotional exhaustion and job satisfaction due to ERI were higher in overcommitted employees (See Tsutsami & Kawakami (2004) and van Vegchel *et al.* (2005) for a review).

2.7 Burnout Theory

Chronic or long-term experience of stress[1] may lead to the development of burnout[14]. The continuum between states of eustress to mild-moderate distress may vary, given that symptoms of distress may vary between individuals. Severe and prolonged distress, however, is likely to be consistently observed as symptoms of emotional burnout and severe psychological disturbance. The term burnout, including typical patterns of behaviour associated with the term, was first introduced by Freudenberger (1974) and Maslach (1976), and is based on observations of similar trends in reactions among volunteers who worked with social problems. This was against the backdrop of research in occupational health focused almost exclusively on industrial workers, to the neglect of human service workers. The concept later became a popular metaphor for the psychosocial problems of employees who do 'people work' (Kristensen, Borritz, Villadsen, & Christensen, 2005). Felton (1998) recites a dictionary definition of burnout as 'exhaustion of physical or emotional strength or motivation, usually as a result of prolonged stress or frustration' (p. 238), whereas Borritz & Kristensen (1999) define burnout generally as 'a state of prolonged physical and psychological exhaustion.' According to Maslach and Jackson (1981), burnout refers to a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment among individuals who are involved in 'people work'. The three dimensional model of burnout is distinguished from other stress reactions in that it depicts an interpersonal framework of the concept; relationships between clients, colleagues or

[1] Chronic stressor/stress/strain refers to 'ongoing exposure, condition, or reaction, respectively' (Dollard *et al*., 2003, p. 6).

supervisors are a cause of emotional strain, leading to exhaustion. In this thesis, burnout is defined according to Kristensen *et al.*'s (2005) conceptualisation (section 2.7.5).

Overall, burnout theory has been under-researched in comparison to other work stress models, although it remains a salient issue for health care professionals and worthy of investigation. The most commonly used measures to assess burnout are the Maslach Burnout Inventory (Maslach & Jackson, 1981, 1983), the Burnout Measure or the Tedium scale (Pines *et al.*, 1981; Pines & Aronson, 1988), the Staff Burnout Scale for Health Professionals (Jones, 1980), and the Alienation Index (Berkeley Planning Associates (1977) (Kilfedder *et al.*, 2001). Other relatively novel measures include the Oldenburg Burnout Inventory (OGBI) and the Copenhagen Burnout Inventory (CBI).

Varied conceptualisations of the burnout concept will be discussed. This will include summaries, previous empirical research (where appropriate), and criticisms of MBI, as well as other competing burnout models. The rationale for the selection of the Copenhagen Burnout Inventory for use in this thesis will also be discussed.

2.7.1 Three different conceptualisations of the burnout concept

The concept of burnout is subject to considerable debate. Although some researchers conceptualise burnout as a three-component construct forming a process model of emotional exhaustion, depersonalisation and personal accomplishment (Leiter, 1993), others conceptualise burnout as comprising only emotional exhaustion and depersonalisation (Schaufeli & Taris, 2005). For example, Halbesleben and Demerouti (2005) subscribe to an alternative conceptualisation of burnout, comprising exhaustion and the opposite phenomenon to depersonalisation - engagement, with the inclusion of balanced positive and negative wording of items (the Oldenburg Burnout Inventory), Other researchers define burnout in terms of emotional exhaustion, as captured in the CBI (Kristensen, Borritz, Villadsen & Christensen, 2005). Due to the dissent among researchers, theoretical work in this area must continue (Shirom, 2005), although both the OLBI and the CBI demonstrate convergent validity with the MBI (Demerouti, Bakker, Vardakou & Kantas, 2003; Schaufeli & Taris, 2005), suggesting that they nevertheless may be capturing a consistent construct.

2.7.2 The Maslach Burnout Inventory

In the Maslach Burnout Inventory (MBI), burnout comprises first, the experience of emotional drain and fatigue (emotional exhaustion), second, cynical and negative attitudes towards clients/patients (depersonalisation), and finally, diminishment of self-competence and overall achievement at work (reduced personal accomplishment) (Maslach & Jackson, 1982; Kilfedder *et al.,* 2001; Melchoir *et al.,* 1997). Specifically, emotional exhaustion 'refers to feelings of being emotionally overextended and depleted of one's emotional resources' (Maslach, 1998, p. 69). Major sources of this exhaustion are work overload and personal conflict at work, although this may also include a response to job demand stressors such as role conflict, or direct, intense, frequent, or lengthy interpersonal contacts (or the experience of emotional demands). In this situation, workers may not experience any source of replenishment, and lack sufficient energy to face future tasks or attend to another person in need (Maslach, 1998).

The interpersonal dimension, depersonalisation, refers to 'a negative, cynical, or excessively detached response to other people, which often includes a loss of idealism' (Maslach, 1998, p. 69). This phase is thought to develop subsequent to the experience of emotional exhaustion, and involves an attempt, via the expression of 'detached concern', to reduce negative effects.

Finally, the self-evaluation dimension of burnout, reduced personal accomplishment, encompasses 'a decline in feelings of competence and productivity at work' (Maslach, 1998, p. 69). This experience has been linked to depression, an inability to cope with work demands, and is heightened by lack of social support availability as well as opportunities for professional development (Maslach, 1998). Maslach (1998) provides a complete review of the development of Maslach and Jackson's theory and argues that the 3 dimensions of burnout should not be viewed as a unitary concept, as these three components differ from each other.

The Maslach Burnout Inventory (MBI) has been applied to over 90% of all empirical burnout projects in the world (Schaufeli & Enzmann, 1998). Its factor structure is reported to be valid and invariant across countries, occupations, and

cultures (Schutte, Toppinen, Kalimo & Schuafeli, 2000; Shirom, 2005). An overarching theory does not classify the three components as co-occurring stages of burnout. Although many studies find support for the three-part construct, support for Leiter's (1993) process model of burnout, featuring an across-time association between emotion exhaustion to depersonalisation, and depersonalisation to personal accomplishment, is inconsistent. Whilst some support for the process model is reported (Kitaoka-Higashiguchi, 2005; Richardsen & Burke, 1995), other studies have not found support for Leiter's model (Golembiewski, Deckard, & Rountree, 1989; Houkes, & Janssen, 1999; van Dierendonck, Schaufeli & Buunk, 2001). Furthermore, whilst emotional exhaustion and depersonalisation are moderately to strongly associated, the relationships between personal accomplishment and the former components are weaker or non-significant (Ashforth & Lee, 1997; Leiter, & Maslach, 1988).

At the time of Cordes and Doherty's (1993) review, only five studies using the MBI used a longitudinal design to examine burnout (Cherniss, 1992; Fimian & Blahton, 1987; Firth, & Britton, 1989; Jackson et *al.*, 1986; Leiter, 1990) whereas the majority of other studies have used cross-sectional and structural equation modelling designs (see Cordes and Doherty (1993) for a review of literature using the MBI and Duquette, Kerouac, Sandhu, and Beaudet (1994) for a review of empirical knowledge of nurse burnout). Garman, Morris and Corrigan (2002) argue, based on their findings using the MBI, that burnout may occur at an individual level, as well as at a group level because it is a multilevel construct. However, research to this point has mainly focused on the individual level. Other support for the MBI includes external validity and consistency across occupations (Leiter & Schaufeli, 1996).

Much of the theorising and subsequent research in this area has been undertaken in relation to two constructs. One of these is what is considered the opposite state of burnout: job engagement, while the other, job-person fit, is based on earlier theories such as the job-person fit model. Engagement refers to an 'energetic, involved, and effective state of engagement with work' (Maslach, 1998, p. 73). Job-person fit or mismatch, relates to burnout in that the greater gap or mismatch between the person and the job, the greater the burnout risk, in turn, leading to various health outcomes. Six potential occupational areas of mismatch are nominated, including

work overload, lack of control, insufficient reward, breakdown of community and absence of fairness (see Maslach, 1998 for a review).

In spite of its theoretical appeal and apparent face validity, burnout theory has been criticised due to its reliance on inductive reasoning alone. Both inductive and deductive processes are required for sound theory building. Current researchers of the burnout concept agree that the initial construction of the MBI was not developed on a tested theory, but was developed by induction whereby items were collated and factor-analysed (Shirom, 2005; Taris *et al.,* 2005). The original MBI items are considered to be a special case of burnout acquired from engaging in 'people work,' nested within the general phenomena of burnout, and applied to the work domain (Schaufeli & Taris, 2005). However, there was originally no basis for including exhaustion, depersonalisation and lack of personal accomplishment as the three dimensions of burnout to the exclusion of other factors (Shirom, 2005).

In addition, each dimension is reported to comprise distinct causes and consequences. Exhaustion and depersonalisation share only about 10% of their variance, and each share less variance with personal accomplishment (Shirom, 2005). Thus, exhaustion, depersonalisation and personal accomplishment appear to be distinct constructs (Kristensen *et al.,* 2005; Lee & Ashforth, 1996). Moreover, the process model of burnout suggests that lack of personal accomplishment follows depersonalisation, which in turn, follows emotional exhaustion. On the other hand, lack of personal accomplishment may either precede occupational fatigue (in the form of lacking personal resources) or follow occupational fatigue (in the sense of poor self-evaluation (Schaufeli & Taris, 2005).

Another limitation of the Maslach Burnout Inventory is that only negative states of the dimensions are considered. Revised versions of the scale include positive states of the dimensions (Leiter & Maslach, 1998, Dollard *et al.,* 2003). This is particularly important, as the MBI does not measure whether or not burnout is present, rather it places levels of burnout on a continuum (Cordes & Doherty, 1993).

2.7.3 The Oldenburg Burnout Inventory

It is argued that, unlike the MBI, the Oldenburg Burnout Inventory is based on theory and not empirical findings (Halbesleben & Demerouti, 2005). Halbesleben and Demerouti's approach was to remove the personal accomplishment scale from the MBI, given that previous research suggests it is not as strongly linked with emotional exhaustion and depersonalisation as the latter are with each other. Although the original MBI dimensions are revealed to be distinct concepts that have an influence on each other's development over time, a decrease in personal accomplishment is reported to develop independently from exhaustion and depersonalisation. This may be due to positively worded, as opposed to the negatively worded, exhaustion and depersonalisation items (Schaufeli & Taris, 2005). Nevertheless, diminished personal accomplishment may therefore be redundant in the conceptualisation of burnout in comparison to the other dimensions (Halbesleben & Demerouti; Shirom, 2005; Taris *et al.,* 2005). Halbesleben and Demerouti also expanded the MBI's proposed definition of emotional exhaustion to include cognitive and physical exhaustion.

In contrast to the MBI, the Oldenburg Burnout Inventory reflects a relatively new conceptualisation of burnout. Halbesleben and Demerouti conducted one of the first validation studies of the OGBI in 2005. Although there are no reviews of studies that have used the OGBI, a number of studies have investigated the effectiveness of this survey in predicting work-related outcomes. For example, Demerouti *et al.* (2000) found, using the OGBI, that job demands (i.e., demanding contact with patients and time pressure) and job resources (i.e., poor rewards and lack of participation in decision making) strongly predicted emotional exhaustion, which in turn predicted working conditions and life satisfaction and in nurses.

Like the MBI, the OGBI has also been subject to criticism. Schaufeli and Taris (2005) argue against the conceptualisation of burnout as primarily exhaustion and argue that burnout should be conceptualised as primarily a work-related syndrome of exhaustion and depersonalisation at a minimum. For this reason, they agree with Halbesleben and Demerouti's (2005) position on this point. However, Schaufeli and Taris suggest that diminished personal accomplishment need not be excluded from the MBI if items describing a lack of personal accomplishment, instead

of the reverse wording (positive accomplishment), prove to be predictably useful in research studies. Similar to the views advanced in relation to positive and negative affect, they argue that personal accomplishment and the lack thereof are not necessary opposite poles of the same continuum, but factors that might usefully be examined as separate constructs.

Shirom (2005) contends that the problems with the MBI outlined by Kristensen *et al.* (2005) are still prevalent in the OGBI. For example, whether the exhaustion scale is modelling physical, cognitive, or emotional exhaustion is a moot point if the three dimensions are represented as separate constructs. In addition, if Kristensen *et al.'s* (2005) opposition to the three original dimensions of the MBI being incorporated into one single phenomenon is accurate, this position would also apply to the OGBI, given that exhaustion and engagement comprise two dimensions of the same phenomenon.

2.7.4 Empirical research of the burnout construct using the MBI and the OGBI with reference to the effects on nurses

Much of the empirical research on burnout suggests that non-work or work environment factors are more likely to be significantly associated with burnout than biographical (e.g., age, working status and work tenure) and individual difference variables (e.g., negative affect or trait anxiety) (Bekker, Croon & Bressers, 2005; Maslach, 1992; Payne, 2000; Shirom, 2005). For example, Maslach and Jackson (1981) report that burnout is associated with deterioration of service quality, job turnover, absenteeism, low morale, self-reports of personal distress, insomnia, increased alcohol and drug use and marital and family problems. They suggest that emotional exhaustion and engagement (linked to job resources) each have different antecedents and that these antecedents will differ by occupational group. Prominent work demands associated with burnout include role ambiguity, role conflict, stressful events, heavy workload, and pressure. The resources employees may draw upon to overcome burnout include social support from various sources, autonomy, participation in decision-making, and job enhancement opportunities such as control (distinct from the definition of autonomy) and reinforcement contingencies (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Dollard, 1996).

Other studies such as those conducted by Bakker and De Jong (2001) in the context of the Demand Control Support showed that burnout mediated the relationship between job demands, control and support, and the outcome of health complaints. Burnout may therefore be viewed not only as an outcome, but also may contribute to indirect effects within the stress-strain process.

Not surprisingly, nursing, by virtue of being a caring profession, is considered to be high risk for the development of burnout (Ullrich & Fitsgerald, 1990). For instance, experience of death and dying is a prominent stressor contributing to emotional exhaustion (Chapter 1). As burnout is a chronic form of stress, low numbers of nurses, high workload and long hours, known to be linked to stress, are also linked to burnout (Demerouti, Bakker, Nachreiner & Schaufeli, 2000; Edwards *et al.,* 2003; Lee & Ashforth, 1996). Commitment to patients may drive long hours for nurses. Long hours, associated with high workload, may also burn out employees (Lee & Ashforth, 1996) so that those who might initially enjoy their jobs end up hating them over time. In such situations, even the incentive of extra remuneration may be an insufficient incentive to remain in the profession if the time and effort involved acts to reduce the time available for family commitments (Pocock, 2003).

Other factors found to influence burnout (emotional exhaustion and depersonalisation) among nurses are role ambiguity, workload (Cordes and Doherty, 1993; Lee &Henderson, 1996; Tilley &Chambers, 2003), age (young age) (Leiter & Maslach, 1998), negative affectivity (Kilfedder *et al.*, 2001), hardiness, active coping, social support from supervisors and colleagues (Melchoir *et al.,* 1997; Payne, 2000), lack of organisational involvement, job dissatisfaction, and absenteeism (Borritz *et al.,* 2006; Cordes & Dougherty, 1993). In some studies role conflict was significantly associated with emotional exhaustion in nurses (Boles, Johnston & Hair, 1997; Kilfedder *et al.*, 2001; Melchoir *et al.,* 1997; Lee & Ashforth, 1996), although role ambiguity was not, whereas Cordes and Doherty (1993) report that role ambiguity is associated with nurse burnout. Interestingly, Demerouti, Bakker, Nachreiner and Schaufeli (2000) found that demanding contacts with patients contributed the most to emotional exhaustion. Finally, as discussed in Chapter 1, organisational changes such as cost reducing strategies or the casualisation of staff can foster working

environments that can contribute to emotional exhaustion in nurses (Moore & Mellor, 2003; Woodward, Shannon, Cunningham, McIntosh, Lendrum, Rosenbloom & Brown, 1999).

In line with the brief discussion at the end of Chapter 1, research examining the prevalence and predictors of burnout in nursing has also examined whether this phenomenon is more common in certain areas of nursing. For example, Adali and Priami (2002) examined the levels of stress in emergency, intensive care, and internal medicine units using the Maslach Burnout Inventory. The study revealed that nurses in the emergency department experienced a higher level of stress and related burnout than those that worked in the intensive care or internal medicine wards. In addition, as briefly discussed in Chapter 1, there is mixed empirical evidence that oncology nurses may experience higher levels of burnout than nurses in other specialty areas. Some findings have led to the assumption that oncology nursing is a specialty characterised by high burnout (Escot *et al.,* 2001; LeBlanc & Schafeli, 2003). Other empirical evidence suggests that oncology nurses have lower levels of burnout than other nursing specialties (LeBlanc & Schafeli, 2003), while other recent studies report no difference in burnout between oncology nursing and other specialty areas (Cronin-Stubbs & Rooks, 1985; Melchoir *et al.,* 1997; Tyler & Ellison, 1994; Van Servellen & Leake, 1993).

A comparison of psychiatric with general hospital nurses, using the Dutch version of the MBI revealed that psychiatric nurses experienced higher emotional exhaustion than general nurses (Tummers *et al.,* 2001). In a review of burnout in psychiatric nursing, Melchoir *et al*. (1997) indicate that the three common risk factors of burnout were aggressive and suicidal patients, non-reciprocity between a nurse and a patient during emotion-based interactions, and unrealistic expectations of the potential for patients to be rehabilitated. These results are not specific to psychiatric nurses, and may generalise to nurses working in other specialty areas where psychiatric patients may be placed temporarily. For example**,** interactions between nurses and severely disabled patients are associated with higher burnout levels than other types of work tasks, and typically lead to feelings of helplessness and frustration (Schaufeli, 1990; Melchoir *et al.,* 1997). Certainly, it may be construed from Maslach and Jackson's (1982) research that a frequency and emotional intensity of interactions

with patients with a poor prognosis may significantly affect development of depersonalisation in service workers.

A study by Happel, Martin and Pinikahana (2003) in Melbourne, Australia compared forensic psychiatric nurses with general psychiatric nurses from a mainstream mental health service on levels of burnout. The study confirmed that mental health nurses from mainstream areas experience higher levels of burnout than forensic psychiatry nurses. However, a limitation of the study was that the sample of nurses from mainstream mental health services was small. Participants were also recruited from the same location, making it difficult to determine confounds, or generalise to other locations.

2.7.5 The Copenhagen Burnout Inventory

The Copenhagen Burnout Inventory (CBI) was developed and validated by Kristensen *et al.* (2005). The development and initiation of a Project on Burnout, Motivation and Job Satisfaction (PUMA), using the CBI, was conducted by the National Institute of Occupational Health (NIOSH) in Copenhagen, following reports by human service worker unions of sharp increases in long-term sick leave and early retirement. The CBI is a general burnout instrument that measures fatigue and exhaustion, and may be applied to different facets of work and home life: personal, work and client related domains. The personal burnout scale is designed to be generic, the work-related burnout scale has the restriction of paid employment, and in relation to the client burnout scale, the word 'client' may be replaced with 'patient', 'student' or 'inmate'. The general dimension of personal burnout is defined as *'the degree of physical and psychological fatigue and exhaustion that is experienced by the person'*, and therefore no distinction is made between physical and psychological fatigue or exhaustion. Work-related burnout is defined as *'the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work,'* allowing the focus to be symptoms of fatigue or exhaustion experienced at work only. Client-related burnout is described as *'The degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients'* (Kristensen *et al.,* 2005, p. 197). This construct therefore assesses the classic connection between those who do 'people work' and the experience of fatigue and exhaustion.

Emotional exhaustion is generally viewed as the core dimension of burnout, (Cordes & Dougherty, 1993; Janssen, De Jonge & Bakker, 1999; Maslach, 1998). For this reason, and in line with Kristensen *et al.* (2005), emotional exhaustion will be the only dimension considered and tested in the work of this thesis. Included in Kristensen *et al.'s* (2005) work are four reasons for developing a new measure of burnout. Their reasons for the rejection of the MBI (and in turn, rejection of burnout measures that subsume some of the properties of the MBI) are provided below:

(1) There is an unclear relationship between the MBI subscales and the burnout concept. The definition of burnout according to the MBI refers to one concept. However, emotional exhaustion, depersonalisation and personal accomplishment denote three independent measures for that concept; each develop independently from each other and comprise their own causes and consequences.

(2) Kristensen *et al.* (2005) do not suggest that depersonalisation and personal accomplishment should not be assessed in their own right, or that these phenomena are redundant. The authors suggest that depersonalisation and personal accomplishment should not be measured in conjunction as part of a process model of burnout. However, the three dimensions of the MBI are currently included into a total score, in order to determine cut off scores for 'burnout' from 'non-burnout' cases (Schaufeli & Taris, 2005). The authors argue that exhaustion should be studied as an individual state, depersonalisation should be studied as a coping strategy used by workers along with other coping strategies studied in the coping and stress literature, and that personal accomplishment should be considered to be one of the consequences of long-term stress.

(3) The MBI, as it stands, may not be acceptable for use in an European culture, given previous incompatible responses to MBI questions in an early pilot study, particularly to questions describing the depersonalisation and personal accomplishment constructs.

(4) The content validity and theoretical nature of burnout represented by the MBI is questionable. The addition of a few extra items and the re-wording and revision of items appears to maintain a consistent factor structure across occupations, whereas the fundamental message of burnout relating to employees who do 'people work' appears to remain unchanged. Kristensen *et al.* (2005) state, *'In one paper, Schutte, Toppinen, Kalimo, & Schaufeli (2000, p. 54) write that the MBI-GS measures 'burnout – a mental condition that is similar but not identical to the classical definition of the syndrome…This seems to be as close as we can get to a definition of the new concept of burnout.'* (p. 196).

A number of studies have used the CBI and have found it to have good psychometric properties. For example, high internal reliability scores for CBI subscales were established in the ongoing PUMA five-year longitudinal intervention study, as well as Winwood and Winefield's (2004) study of burnout among dentists in Australia. The three scales display content validity with other occupational groups, as well as criterion validity (convergent validity with measures of fatigue and psychological well-being, and divergent validity between general health and client-related burnout). Further evidence for the measure of the burnout construct was the finding that over time many employees' burnout levels had changed. For instance, Kristensen *et al.* (2005) found the three CBI subscales to be strong predictors of future sickness absence, sleep problems, use of pain-killers, and intention to quit, as changes in the former variables reflected the increase or decrease in the degree of burnout over time. When comparing the CBI to the MBI in an Australian study on dentists, Winwood and Winefield (2004, p. 282.) assert *'The CBI possesses excellent psychometric properties and seems to be an appropriate measure of burnout in populations of health professionals.'*

When compared with 15 occupations in the PUMA baseline study, average CBI burnout scores for nurses in Denmark fell in the middle-range and were lower than those working as hospital secretaries, home helpers, social workers and social care workers, assistant and district nurses, hospital doctors (work-related burnout) and prison ward officers (client-related burnout) (Kristensen *et al.,* 2005). Chief doctors and head nurses were found to have lower levels of overall burnout. Those working in

hospital-based jobs had relatively higher burnout scores in relation to work or task-related burnout. This finding is not surprising, given that greater priority may be placed on task-orientated versus client-related work for in hospital settings.

van der Shoot, Oginska & Estryn-Behar (2003), researchers from the Nurses Early Exit Study (NEXT) distributed the Copenhagen Burnout Inventory (CBI) to nurses working in 10 European countries. Ninety seven percent of participants were affected by personal burnout. Nurses from hospital settings indicated the highest mean personal burnout scores, followed by nurses from nursing homes, outpatient care and home care, and women also indicated higher mean personal burnout scores than men. Among workers with the highest burnout scores based on the CBI, the item 'Unsatisfied with opportunity to give care needed' attracted the highest percentage endorsement (46.8%). Satisfaction with the care provided to patients was therefore of great concern among nursing staff in the NEXT study.

The CBI has also attracted criticism. For example, some researchers have preferred to use a single dimension, such as exhaustion, to characterise burnout (Pines & Aronson, 1981; Shirom, 2005). However, Schaufeli and Taris (2005) argue that in doing so, burnout is made synonymous with fatigue. The authors therefore argue for a conceptualisation of burnout as both exhaustion and withdrawal (the protective response for exhaustion an individual will utilise in order to prevent him/herself from expending additional energy). Exhaustion and depersonalisation (or withdrawal) are inseparable components; withdrawal may become part of the problem and may therefore make it more difficult for individuals to seek solutions that involve positive coping strategies.

Speculation concerning the overlap between emotional exhaustion and depression arise from identical criteria for identifying symptoms of fatigue, such as a loss of energy, present in both depression and burnout scales (Shriom, 2005). In fact, depression and emotional exhaustion are suggested to be interchangeable (Hemingway & Marmot, 1999, cited by Shirom, 2005). However, burnout is conceptually distinct from depression in that feelings of sadness, guilt, hopelessness and feelings of worthlessness (characteristic of depression) are removed.

Additionally, burnout is dependent on the quality of a particular social environment, and is not influenced by every feature of an individual's environment.

However, as discussed, the CBI does not define burnout as fatigue itself, but the *attribution* of fatigue and exhaustion within specific domains such as personal life, work and client work. Kristensen *et al,* (2005) state: '*In our understanding of the concept the additional key feature is the attribution of fatigue and exhaustion to specific domains or spheres in the person's life. One such domain is work and a more specific domain is client work'* (p. 196-197).

In the current research project involving nurses, the Copenhagen Burnout Inventory will be used. Nurses may not have the opportunity to interact on an emotional level with patients, or with their colleagues, for long periods during working shifts. In this case, depersonalisation may not be useful to study. Further, in line with authors who contend that emotional exhaustion is the core component of burnout, the comments made by Kristensen *et al.* (2005), as well as the research indicating that personal accomplishment develops independently from both emotional exhaustion and depersonalisation, the CBI is the preferred baseline burnout measure for the nursing occupational group. A test of fit of the factor structure of the CBI among samples of hospital nurses in comparison to alternative factor structures of burnout is therefore desirable.

2.8 Job Demands-Resources Model (JD-R)

The central tenet of the Job Demands-Resources Model (Bakker, Demerouti, De Beoer & Schaufeli, 2003a) is that, while many work characteristics may be occupation specific, two classes of work characteristics: job demands and job resources, are common between all occupations. Job demands refer to 'physical, psychological, social, or organisational aspects of a job that require sustained physical and/or psychological (cognitive and emotional) effort, and are therefore associated with certain physiological and/or psychological costs' (Bakker, Demerouti & Verbeke, 2004, p. 86). Examples of job demands include high work pressure, role overload, emotional demands, and poor environmental conditions. Job resources include 'physical, psychological, social, or organisational aspects of the job that are (1) functional in achieving work goals; (2) reduce job demands and associated

physiological and psychological costs; or (3) stimulate personal growth and development' (Bakker, Demerouti & Verbeke, 2004, p. 86). In addition, classic work characteristics of Hackman and Oldham's (1976) model, namely, the level of the task (e.g., performance feedback, skill variety task significance, task identity and autonomy), resources at the level of the organisation, interpersonal relations, and the organisation of work are applied to the JD-R model (Bakker, Demerouti & Verbeke, 2004).

The second major conjecture of the model is that (1) demanding work characteristics (e.g., excessive workload) may result in emotional exhaustion over time, and in turn, to reduced work performance, due to depletion of job resources; and (2) a lack of job resources may disallow workers to achieve extra role performance, and in this context, employees may lose motivation, commitment, and withdraw from work via disengagement (Bakker, Demerouti & Verbeke, 2004). Furthermore, job demands and resources characteristics negatively relate to each other, given that they may either buffer negative effects (high job resources may reduce the effects of demands), or reduce the positive effects of the other (job demand characteristics may hamper positive use of resources) (Bakker, Demerouti & Verbeke, 2004).

Kahn and Byosiere (1992) argue that stress can result from an interaction between individual or organisational factors. These factors may influence stress and strain by (1) either reducing the influence of environmental variables in the stress-strain sequence; (2) by moderating perceptions and cognitions elicited by particular stressors; (3) by moderating responses that trail the appraisal process; or (4) by reducing negative consequences associated with responses to excessive demands (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003b).

Research using the JD-R model has shown some support for these propositions. In one study that focused on four home-care workplaces, it was found that job resources buffered the impact of job demands, such as workload, physical demands and harassment from patients on emotional exhaustion when home-care workers lacked resources such as autonomy, opportunities for professional development, and performance feedback (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003b). In their study of 1,000 employees of a higher education

organisation Bakker, Demerouti and Euwema (2003) found that, for those with fewer resources, such as lower autonomy, social support, supervisory coaching, and feedback, job demands influenced the development of burnout (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003b).

In effect, the notion that job demands and (lack of) resource characteristics contribute to emotional exhaustion and disengagement, and that this, in turn, influences job performance is supported (Bakker, Demerouti & Verbeke, 2004). The contention that several individual or organisational properties may buffer effects on stress and burnout has enabled the JD-R model to provide a suitable explanation for interaction effects commonly found in stress research. The buffer hypothesis of the model also appears to overlap with other models, such as COR theory.

2.9 The Conservation of Resources Theory (COR)

The Conservation of Resources Theory (COR) will be discussed and evaluated, given that it will be used in this thesis to account for findings. The theory is chosen for its broad application, as well as its suitability to health care workers in the workplace in the identification of risk factors as well as resources relating to the development and consequences of occupational stress. The COR theory presents an objective or socially and culturally learned component (at group level), as well as a personal component (Hobfoll, 2001b). The theory is offered as an alternative to appraisal-based stress theories, such as Lazarus' Cognitive-motivational-relational stress theory. It is termed a 'resource-based coping theory', and is distinguished from Lazarus' process theory because it emphasises 'prior objective resource status and subsequent coping,' rather than initial appraisal (Schwarzer, 2001, p. 403). The theory is also differentiated from Person Environment Fit Theory in that it expands individual's perceptions (of P-E fit) to the examination of collective or communal perception (of objective resources).

The core tenet of COR theory is that 'individuals strive to obtain, retain, protect, and foster those things that they value' in 'biological, cognitive, and social domains' (Hobfoll, 2001a, 2002). In doing so, individuals draw on transcultural and culturally constructed resources (or valued entities), where resources include objects, conditions, personal characteristics or energies. Objects comprise physical or tangible

resources that represent further acquisition of secondary status value based on scarcity and expense. Conditions that are sought after and valued, such as marriage, tenure, or seniority are classified as resources. Personal characteristics that generally aid stress resistance and promote a positive sense of self, such as personal traits and skills, and energies such as time, money and knowledge are also valuable resources. Additionally, energies may aid in the acquisition of other resources (Grandey & Cropanzano, 1999; Hobfoll, 1989).

Hobfoll (2002) also observed that social support is a resource as long as resource maintenance is achieved while social support is available. Seventy-four resources have been classified and established for the Western setting (Hobfoll, 2001a). According to COR theory, psychological stress occurs (1) at the threat of an individual's resources; (2) during the actual loss of an individual's resources; or (3) if an individual fails to gain resources following significant resource investment. A number of tenets, principles and corollaries support the theory and are discussed below.

The major principles of COR theory, as stipulated in Hobfoll's (2001a) lead article, are:

Principle 1: The Primacy of Resource Loss. 'resource loss is disproportionally more salient than resource gain' (p. 343); and

Principle 2: Resource Investment. 'people must invest resources in order to protect against resource loss, recover from losses, and gain resources' (p. 349).

The corollaries following from the principles are:
Corollary 1 (for Principle 1): 'those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain. Conversely, those with fewer resources are more vulnerable to resource loss and less capable of resource gain' (p. 349);

Corollary 2 (for Principles 1 and 2): 'those who lack resources are not only more vulnerable to resource loss, but that initial loss begets future loss' (p. 354);

Corollary 3 (for Principles 1 and 2): 'those who possess resources are more capable of gain, and that initial resource gain begets further gain. Because loss is more potent than gain, loss cycles will be more impactful and more accelerated than gain cycles' (p. 355); and

Corollary 4 (for Principles 1 and 2): 'those who lack resources are likely to adopt a defensive posture to conserve their resources' (p. 356).

Hobfoll's (1989, 2001a) resource conservation model predicts three general pathways that can lead to acute and chronic resource loss. Hobfoll suggests that, once resources are lost, individuals first apply resource conservation strategies using available resources in an attempt to generate new resources and increase resource availability. These strategies may reduce the likelihood that acute and chronic losses will occur. On the other hand, unsuccessful adaptation and investment of resources leads to negative health outcomes and well-being, as well as fewer resource pools to draw upon in the future. Additional secondary resources losses may then ensue, resulting in an exacerbation of acute and chronic resource loss and increased exposure to events that facilitate resource loss. The COR model is presented in Figure 2.2.

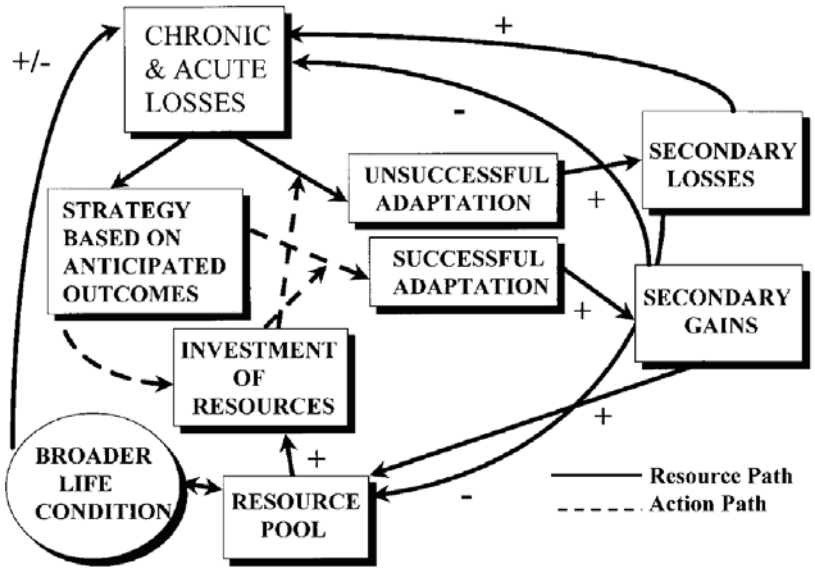

Figure 2.2. The Conservation of Resources (COR) Model. Reprinted from Hobfoll, S.E. (2001). The influence, of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An international review, 50* (3), 337-421.

The third general pathway of COR theory describes the burnout concept as a chronic experience of resource loss following significant resource investment (potentially including resource substitution) in order to cope with work demands (see also section 3.6.2) (Hobfoll, 2001a). Research analysing studies of burnout support this claim (Lee & Ashforth, 1996; see Hobfoll, 2001a for a review). Specific mechanisms through which resources loss and gain is accumulated, as well as the mechanisms by which individuals attempt to 'obtain, retain, protect, and foster', and respond to resource loss are described below.

Accumulation of resource loss and gain

2.9.1 Resource caravans

Those who have many resources will likely acquire more resources than those who have few, given that resources amass in 'resource caravans'. In addition, responses to demands may involve the use of more than one resource, typically grouped together, such that a deliberate introduction of an inner or outside force is the only way a grouping of resources may be permanently changed. Consequently, having as many

resources as possible (provided that they are valued and can be of use) is most beneficial because even when existing resources do not specifically fit demands faced, other better matched resources may be used. It is the matching of specific types of resources that is likely to produce the most favourable health outcome (Bakker, Demerouti, & Euwema, 2005; Hobfoll, 2002; Jonge & Dormann, 2006).

Resource accumulation is predicted to occur in the short term as well as over the lifespan, such that episodes of great resource gains or losses are likely to be repeated in future periods (Hobfoll, 2001a).

2.9.2 Resource loss and gain spirals

The experience of resource loss is thought to encourage 'gain seeking'. However, vulnerability is likely to result from the investment of resources following loss, such that individuals in such circumstances will become more vulnerable to ongoing loss (which has a more powerful effect than resource gain); this may exacerbate the negative effect of ongoing loss spirals (Hobfoll, 2001a). Long-term resource gain, elicited by acquisition and mobilisation of resources following resource loss, may significantly influence psychological distress to the extent that distress is reversed (See Hobfoll, 2001a for a review).

2.9.3 Resource investment strategies

The first attempt to cope with the demands of stress and offset net loss is termed resource replacement. This strategy consists of resource loss, followed by attempts to regain or replace those lost resources. If resource replacement fails, the next strategy is resource substitution. The (positive) influence of lost resources may be maintained by replacing lost resources with other suitably matched resources, located from another resource domain (Hobfoll, 2001a, 2002).

On the other hand, a defensive strategy of 'not investing coping effort and resources in order to conserve resource reserves' (Hobfoll, 2001a, p. 356) is likely to be applied by individuals or groups experiencing resource depletion. This is because active coping may not be possible in circumstances where there are limited available resources to invest. Temporary strategies such as denying the need to be proactive or

taking psychological respite may also be unavailable to individuals or groups in situations where there is a severe shortage of resources.

Although inherently logical in its articulation of principles, this theory has also been subjected to criticism, most notably by Lazarus (2001). Lazarus argues that individual differences render objective reality impossible, and that Hobfoll's (2001, p. 340) suggestion that cognitive appraisal is the 'best proximal indicator at the individual level of stress' is contradictory when considering the pivotal nature of cognitive appraisal. In fact, cognitive perception in light of acknowledged individual differences is considered to be more valid by Lazarus than culturally constructed or learned group perception. Lazarus also states that many of the principles of COR theory are reworded variations of Lazarus' Cognitive-Motivational-Relational Theory. According to Lazarus, resource loss is associated with the harm/loss, threat, challenge and benefit aspect of cognitive appraisal, is predominantly subjective at the individual level, and is less concerned with objective, shared, social environments.

Moreover, Lazarus (2001a, p. 386) also argues that Hobfoll (2001a) does not address the argument as to whether subjective appraisal is sufficient to 'predict emotional outcomes' or 'objective social facts.' In support of this view, Lazarus differentiates between subjective and objective phenomena and suggests that Hobfoll has not acknowledged that variation in appraisals and reactions are attributed to individual differences and cannot be replaced or explained away merely by reference to normative generalisations or broad tendencies in the general population.

In response, Hobfoll (2001b) argues that sufficient evidence supports that resource loss is more strongly linked to health outcomes than appraisal-based measures, other than harm/loss appraisal; that reinstatement of lost resources will immediately reinstate the well being of the individual. He also suggests that, although great attention is paid to the subjective component of stress, both subjective and 'objective' components should be evaluated in relation to changes in resources. Moreover, Hobfoll identifies conditions in which the objective component of stress will be paramount. Such conditions include when:

> *'the stressor is unambiguous; objective circumstances have strong impact on major resources or a broad array of key resources; there is clear biological response or cultural meaning allotted to the circumstances; the circumstances pose a threat to the self-nested family, nested in tribe'* (p. 359).

Hobfoll (1989, 2001a, 2001b, 2002) also suggests that his broad-based resource theory is not targeted toward predicting stress within specific contexts and between individuals, but rather seeks to incorporate individual, communal and cultural influences of adaptation on a macro-analytic level.

Hobfoll (2001b) responds to five other criticisms of COR theory in his 2001 lead article. The first criticism is that personality traits, such as neuroticism and extroversion may predispose an individual to evaluate and cope with losses in particular ways, and thus expose them to greater loss-related events in comparison to individuals without these traits. Hobfoll describes research findings that indicate that resource loss has a significant effect on strain when neuroticism and extroversion are controlled. Resource loss was suggested to be strongly associated with negative affect, and similarly resource gain with positive affect (i.e., in line with the dual valence theory of emotions). This implies that resource loss is only more salient than resource gain because previous stress research has tended to study negative rather than positive health outcomes. This second criticism was answered via research that found resource loss to be predictive of both negative and positive affect.

The third criticism relates to difficulty in developing an over-arching theory of stress that is also specific enough to incorporate all relevant variables that may be encountered. The COR theory is criticised for being too general and providing a non-finite list of resource possibilities. Apart from creating a scale listing 74 key resources identified in community samples, Hobfoll (2001b) suggests that proceeding with an initial investigation of key resources (e.g., self-efficacy, social support, self-esteem and optimism, as identified in the literature) could be beneficial in this regard.

The fourth criticism is relates to the limitation of the theory's explanation of specific and contextual properties of the stress process. Hofboll (2001b, p. 361)

reiterates that COR theory is a 'broad-based motivational theory' suitable for indicating general stress resistance and coping processes, once resources and the ecological setting are known. However, without known 'person-in-context properties' the theory is unable to be used to make specific predictions about the stress process, and was not designed for this purpose.

A final limitation is that while Hobfoll (2001) maintains that COR Theory is separated from stress appraisal theory, components of cognitive appraisal as well as concepts from stress-motivation theories, resource and coping theories, role theory, and the Selective Optimization with Compensation theory have contributed to the development of COR Theory (Grandey & Cropanzano, 1999; see Hobfoll, 2001a for a review).

2.10 Empirical research on factors affecting nurse health and COR theory

One important context in which the Conservation of Resources Theory (COR) has been applied is in relation to work to family conflict. In line with COR theory, more conflict experienced in one domain is predicted to result in fewer resources available to fulfil demands in another. On the other hand, COR theory supports enhancement theory in that the performance of multiple roles may foster accumulation of resources for use in alternative domains. In applying COR theory, Grandey and Cropanzano (1999) distinguished between work (or family) role stress arising from stressors in the work (or family) domain, and work to family conflict, (or family to work conflict), which is defined as the conflict in managing roles (in terms of time, energy or behaviour) within the two separate spheres. In accordance with COR theory, once stressors from the work and family domain drained resources over time, job and family tension, life distress and lack of physical health were experienced. In order to minimise a loss of resources, participants considered leaving their job as a way of coping. They also appeared to compartmentalise their roles into separate domains, possibly as an adaptive function, in order to prevent resource loss by having the limitations of one role drain resources from another. Although it was also speculated that having multiple roles might also serve to facilitate resource gain because of the development of greater resources through the performance of multiple roles *per se*, studies have found only limited support for this proposition. For example, studies

have shown that there is a positive association between the level of family role stress and the number of children in a family (Barnett & Marshall, 1988).

2.10.1 Social support and COR theory

As Brotheridge and Lee (2002) point out, a very important element of COR theory is that workers who experience difficulties with professional relationships in their work environment may attempt to accumulate resources in the form of social support from elsewhere in their work environment. This action is congruent with resource substitution of COR theory. In a similar vein, as reciprocity is related to perceived social support availability (Bowling *et al.,* 2004), a lack of social reciprocity may prompt employees to reduce emotional efforts in order to maintain balance and avoid negative health outcomes (Bunnk, Schaufeli, & Ybema, 1994; Schaufeli, van Dierendonck & van Gorp, 1996). These actions resemble what is termed defensive responding in COR theory.

2.10.2 Emotion labour and Conservation of Resources Theory (COR)

Using the Conservation of Resources Theory as a framework, Brotheridge and Lee (2002) sought to draw empirical links between emotion labour (Chapter 1) and burnout using a process model, whereby rewarding relationships and authenticity operated as resources, and therefore as mediators for the relationship between emotion work performance and burnout. Emotion demands or display rules are imposed on employees, to which resources are directed so that rewarding relationships may be experienced. As building rewarding social relations is one of the most important ways individuals are able to gain or regain resources, COR theory appears useful in that burnout may be seen as the result of individuals not being able to retain emotional resources spent as a result of emotion regulation undertaken at the requirement of the organisation (Hobfoll, 1989).

Suppression of emotions via surface acting requires a greater expenditure of resources in the long term as there is little potential for resource gain (i.e., little potential for rewarding relationships). Employees may therefore utilise deep acting instead of surface acting in the first instance in order to minimise thus type of resource expenditure (Brotheridge & Lee, 2002).

Previous published work has used COR theory to explain the relationships between emotion labour and burnout, work-family conflict and stress, and the influence of emotional exhaustion on work performance and voluntary turnover (Brotheridge & Lee, 2002; Grandey & Cropanzano, 1999; Wright & Cropanzano, 1998). On the basis of this work, using samples of occupational groups with similar issues to those experienced by nursing staff (Brotheridge & Lee, 2002; Wright & Cropanzano, 1998), COR theory would appear to be more useful in studying nursing staff than are competing theories.

2.11 Emotional regulation theory

The requirement for emotion regulation in the interactions between nurses, their colleagues, patients and relatives of patients is also worthy of investigation, given the central position emotion regulation appears to hold among the health care professions. A number of theories have been devised to account for proposed links between antecedents of emotion regulation, as well as the link between emotion regulation and positive and negative consequences. These theories include emotion regulation theory and action theory, as described below.

Emotional regulation theory is briefly outlined in Chapter 1. According to this theory, emotion regulation is defined as 'the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions' (Gross, 1998, p. 275). The general model of emotion regulation introduced by Gross (1998) is an input-output model, with input constituting stimulation from the situation an individual absorbs, and the output, the response given via expression of emotions. In this sense, the situation acts as a cue for the individual, and the emotional response given (e.g., behavioural, cognitive or physiological) allows other individuals in the social environment to gain relevant information (Frijda, 1986; Grandey, 2000).

Gross (1998) suggests that emotion regulation may occur in two phases. The first phase is labelled 'antecedent-focused' emotion regulation, and involves regulation of the situation (or an individual's appraisal of a situation), while adjusting emotional responses accordingly. This phase is likened to 'deep acting'. 'Antecedent-focused' emotion regulation involves either deployment of attention (changing the

focus of personal thoughts by thinking about events that elicit the desired emotions required for the situation), or cognitive change (changing the focus of cognitive appraisals of the external situation by viewing the situation in a way that lessens its impact on the individual). The second phase involves modification of physical or otherwise observable indications of emotions, and corresponds with 'surface acting' or 'response-focused' emotion regulation. 'Response-focused' emotion regulation may involve adjusting the intensity of observable expression of emotions, or feigning the emotion expression altogether (Grandey, 2000). Both forms of emotional expression are assumed to require some effort. If particular emotional expressions are demanded of an employee by the organisation, it is argued that more emotional regulation would occur.

2.12 Action Theory

Action theory (Hacker, 1973, 1998) proposes that work activity consists as a pyramidal-hierarchical structure of goals and sub-goals. A goal directs an action, and success in achieving a goal is determined by feedback processes. Each goal is also divided into sub-goals, which are further divided. This framework is often used to describe the impact of stressors on employees. Using action theory, one may distinguish between three aspects of a job: regulation requirements, regulation possibilities and regulation problems. Regulation requirements refer to the complexity of a task, the number of goals and sub-goals and the amount of conscious or automatic regulation processing. Regulation possibilities refer to the level of control a worker has in completing a task, (e.g., time control). Lastly, regulation problems are work stressors from an action theory perspective and pertain to the disturbance of the regulation of actions. Using action theory, Zapf (2002) proposes that individuals try to cope actively with their environment so that challenging tasks (regulation requirements) involve a considerable amount of control (regulation possibilities) and a minimal number of stressors (regulation problems). If this is achieved it can lead to the development of social and cognitive skills, and in turn, job satisfaction and self-esteem.

In applying the theory to emotion regulation processes, three levels of action regulation assist in the performance of goals. These are referred to as (1) the intellectual level of action regulation, (where complex problem decision making, new

action programs are developed, and conscious, slow and laborious, resource limited and controlled processing takes place); (2) the level of flexible action patterns, (routine actions are stored in long term memory and are regulated according to particular situations requiring little attention); and (3) the sensorimotor level of action regulation (stereotyped and automatic actions are organised unconsciously at a rapid and limitless rate, requiring minimal effort). Different tasks will require different levels of action regulation, although tasks will also comprise subtasks that may be completed via regulation at lower levels of processing (Zapf, 2002).

Emotion labour or emotion work may be performed as a secondary task to an overall primary task, while both tasks are performed in parallel. For example, a nurse may be required to take blood from a patient (task orientated function related to primary task), while talking to the patient in a calming voice and using automatic emotion regulation at the sensorimotor level (Zapf *et al*., 2001). Surface acting (a type of emotion labour performance) may be regulated using flexible action patterns that may employ part automation at the sensorimotor level, although may not necessarily involve conscious attention. Deep acting (another type of emotion labour regulation strategy) on the other hand, partly involves conscious processes at the intellectual level of action regulation. However, deep acting may not occur in parallel with other conscious processes due to information processing limitations. Deep acting is likely to be performed before and not during a social interaction, unless the primary task performed in parallel requires little attention, or the task is interrupted (Zapf, 2002). In the event of development of emotional exhaustion, whereby an individual is not able to display an organisationally desired emotion, emotional deviance may occur. The more automatic action regulation used (associated with genuine feelings experienced by the employee, and thus less emotional effort required in the form of inauthentic emotional expression), the higher the likelihood of positive consequences, such as personal accomplishment (Fay, Sonnentag & Frese, 1998; Zapf, 2002).

In light of the usefulness and strength of the Conservation of Resources theory in predicting risk factors and resources in the workplace at both the individual and organisational levels, the COR theory will be used to account for risk factors and resources with respect to Australian hospital nursing staff. The rationale for the risk factors and resources chosen for study among Australian hospital nursing staff is

CHAPTER THREE
INTRODUCTION TO STUDY ONE

3.1 Introduction

Female service industry workers, particularly young female service workers, are most vulnerable to stressors (Victorian Health Promotion Foundation, 2006). Duffield and co-workers argue that the privatisation of the Australian health care workforce and the operation of a business model of healthcare raise concerns among nursing staff. These fundamental issues include competition between organisations, business as opposed to clinical management style, new attempts to reduce costs and meet pre-determined budgets, increased paperwork, understaffing, work intensification, increased hours for individual employees (on top of the noteworthy 24 hour continuity of care shiftwork regime in many large hospitals), higher case and employee mix, shorter patient stays and limited facility and equipment use, as well as constant organisational change (Duffield & O'Brien-Pallas, 2003; Duffield *et al*, 2007).

The health of nurses, the largest occupational group in healthcare, is at present a global topical issue in that nurses face being more pressed at work than ever before (Duffield & O'Brien-Pallas, 2003). For an industry that primarily focuses on health and illness, nurses are rated as having one of the highest prevalence of mental stress among their workers. Present understaffing, working at maximum capacity, and an increase in hospital occupancy compared with 20 years ago have proven to be difficult to manage (Duffield *et al.*, 2007).

Excessive demands and neglect of particular resources for nurses in hospital settings may be contributing to the growing nursing shortage. As indicated above (sections 1.6, 1.7), compensation claims for psychological stress in the nursing profession continue to rise annually in Australia. Other concerns related to the nursing shortage include the increasing casualisation of the nursing workforce and the introduction of short contracts, substitution of experienced with inexperienced nurses into various wards, and the movement of patients (i.e., psychiatric) into specialty areas for which nurses are untrained and are unable to provide adequate care (Aiken, Smith & Lake, 1994; Duffield & O'Brien-Pallas, 2003; Duffield, Roche & Thomas, 2006; O'Brien-Pallas, Duffield & Hayes, 2006; Peterson, 2003). These changes

negatively affect staff at all levels. However, it is likely that the nurses on the floor are most at risk, given that they have lower autonomy, lesser ability to influence changes, and may not participate in organisational decision making. Nursing staff are also often sandwiched between meeting demands of their superiors and those of their patients, which are often in conflict.

In light of a global nursing shortage, researchers from many fields, including organisational psychology, are investigating nurse health. A particular focus of this research is on the constructs of emotion labour and emotion work. The perception of the lay person may be that nurses provide an extensive amount of emotion work (Bolton, 2002). However, with regard to nursing and clinical care, low or unpaid emotion care, such as emotion work performance, is often invisible or unrecognised by comparison with cognitive and physical tasks (Bolton, 2000). The medical, purely physiological approach to patient care may perpetuate nurses' perception that they are incompetent if they prioritise emotional care for patients, or if they are otherwise unable to provide cognitive, physical as well as emotion labour under time pressure (James, 1992; Henderson, 2001; Himmelweit, 1999; Phillips, 1996). Further, due to work intensification and understaffing, nurses are often expected to deal with fragmented and unpredictable tasks subject to interruption (Tucker & Spear, 2006). Nurses who view the provision of emotional care as a resource or reward may experience job dissatisfaction as a result of limited opportunity to provide emotional care (Parle, 2003; Robichaud, 2003; Strazdins, 2000). Nurse dissatisfaction and health may indirectly influence patient satisfaction and health. It is therefore imperative that health care organisations become aware of these issues and act so as to avoid these consequences (Aiken *et al.*, 2001; Baumann, O'Brien-Pallas & Armstrong-Stassen, Blyth, Bourbonnai, Cameron, Doran, Kerr; Farrell, Bobrowski & Bobrowski, 2006).

Research in the area of occupational health psychology has previously focused on negative consequences of working life, with little emphasis given on how resources may be used to positively influence individual health and well-being. Positive affect (Watson & Clark, 1984), social support (Cohen & Wills, 1985; Tyler & Cushway, 1995) and work to family and family to work positive spillover (Hanson, Hammer & Colton, 2006) are reported to have a positive influence on health and well-

being. The previously neglected concept of emotion work, introduced by Strazdins (2000), may also be added to this list, particularly for professions where client interaction is a fundamental element. Nursing is included in this group of professions. Emotion labour is another relatively novel concept in occupational health research that has been explored over the past two decades, and links between emotion labour and health outcomes have been established (Ashforth & Humphrey, 1993; Brotheridge & Lee, 1998; Brotheridge and Grandey, 2003; Grandey, 2003; Morris & Feldman, 1996; Rafaeli 1989; Zapf, 2002). The constructs emotion labour and emotion work are not however, without conceptual debate with regards to their conceptualisation (Kruml & Geddes, 2000; Mann, 1999, 2005; Rafaeli & Sutton, 1987).

Emotion labour and emotion work involve the expression of emotion while interacting with people and both encompass positive and negative components, each potentially contributing to positive and negative individual health and organisational level outcomes. Authentic emotion displays coupled with the notion that emotional care is part of a positive, meaningful relationship, instead of merely institutionalised, results in emotional expression that is less effortful to perform (Rafaeli & Sutton, 1987; Schroubeck & Jones, 2000). In general, emotion labour is more often reported to operate as a demand than a resource, and may be conceptualised as a demand imposed by the organisation rather than voluntarily performed as part of a health care provider/client relationship. Emotion work, on the other hand, is likely to be performed for the latter purpose, potentially operating as a resource for individuals.
Based on the conceptualisations from previous research, the author will attempt to examine relationships between the constructs emotion labour and emotion work and other individual and environmental factors among hospital nurses.

The following study aims to examine the factors that may either compromise or enhance nurse occupational health within both work and non-work domains. These include factors often neglected in the literature such as positive affect, work to family and family to work positive spillover, and emotion labour and emotion work. Given that emotion labour and emotion work, respectively, have been conceptualised differently, an aim of this research is to examine whether emotion work and emotion labour can be distinguished from each other in terms of how each affect nurse health

and well-being. Previous findings suggest that the cognitive processing and performance of emotion work in comparison with emotion labour may differ, and that both forms may not necessarily lead to the same health and organisational outcomes (Bolton, 2000; Grandey, 2003; Strazdins, 2000; Zapf, 2002).

Further, inconsistency in previous research in regard to associations between emotion labour requirements such as feigned expression of positive emotion and negative emotion suppression, and emotional exhaustion, warrant exploration (section 2.11). Previous research suggests that use of the emotion labour regulation strategy, surface acting, can give rise to the experience of emotional dissonance, and that this, in turn, may play an indirect role in the link between emotion labour performance and burnout**.** Further, it appears that the more an individual is expected to feign positive emotion expression on the job, the more he/she may also suppress negative emotion (Tschan, Rochat & Zapf, 2005; Zapf & Holz, 2006). In a similar vein, the authentic component of deep acting may also be linked to emotion work. An association between emotion work performance and job satisfaction may not only be direct, but also indirect via the emotion labour regulation strategy, deep acting.

Particular attention will be given to the distinction between emotion labour and emotion work with regard to: (1) their associations with health and organisational outcomes; (2) the role of emotion labour and emotion work as mediators and moderators (See Appendices 5.2, 5.3); and (3) to address whether emotion labour or emotion work performance, respectively, differ with regard to nursing specialty area. In particular, the contribution of nursing specialty areas to particular individual health or organisational level outcomes, by virtue of bias toward either emotion labour or emotion work performance within that specialty will be examined.

It is prudent that the mediator or moderator effect of other variables in addition to emotion labour or emotion work be considered, given that directionality is not easily established via a cross-sectional design. The role of social support, work to family and family to work conflict and positive spillover, respectively, as mediators or moderators will therefore also be considered, with the aim of either supporting or disconfirming the findings of previous studies**.**

The Conservation of Resources theory (Hobfoll, 1989, 2001a, 2001b, 2002) will be the overarching framework applied to account for the research program findings, and will also be used to provide recommendations for nurses working in hospital settings (section 2.4).

The literature review has identified nurses as an occupational group that is vulnerable to work stress, as well as other outcomes such as emotional exhaustion and job dissatisfaction. As a result, nurses may experience lower organisational commitment and have an intention to leave the nursing profession. It is therefore necessary for researchers to explore resources that may be available to nursing staff that may counter and/or overcome the problem. A discussion and evaluation of the literature in relation to demographic, individual difference, and work environment variables not discussed previously is provided below.

Demographic variables: Age, gender and education

Empirical studies on age

Direct and indirect relationships between age and health or organisational outcomes have been complex. Van de Hijden and Kuemmerling (2003) found that increasing age has no effect on the level of social support from supervisors, although the lowest level of social support from colleagues occurred among middle age employees, and began to increase as employees reached their fifties and above. For work to family conflict, the archetypal finding is that women between the ages of 30-35 indicate the highest mean scores, which begin to decline until age 55 and above (Pocock, Skinner & Williams, 2007).

Interestingly, older workers are less compelled to suppress their emotions on the job, suggesting that healthier emotion regulation strategies may be learned with age. Other coping strategies improve for more experienced nurses (who are more likely to be older), protecting them from the negative psychological effects of stress (Tyler & Cushway, 1995). Trends in job satisfaction indicate the highest scores for the lowest and highest ages (Stordeur, D'Hoore, van de Heijden, Dibisceglie, Laine & van de Schoot, 2003; Warr, 1992).

Empirical studies on gender

Gender is another demographic variable that is typically controlled when examining stressor-strain relationships (Jones & Bright, 2001). Previous studies suggest that women are twice as likely to be diagnosed with depression, than men. Psychological distress using the General Health Questionnaire (GHQ) was significantly higher for women in the Whitehall Study. However, no gender differences were found in a similar large-scale longitudinal study (Jones & Bright, 2001).

Gender differences become difficult to accurately detect in service occupations (e.g., nursing), where the majority of staff numbers are women (Van de Hijden & Kummerling, 2003). One should therefore be cautious in interpreting such results. However, previous research suggests that gender is linked to perceptions of work to family conflict (Erickson, 1993), and assumed to be a significant predictor of family to work conflict, as women are still deemed responsible for the completion of household tasks (Grandey & Cropanzano, 1999; Strazdins, Korda, Lim, Broom & D'Souza, 2004). Women are also more likely to manage emotions at work as well as at home, due to socialisation roles or choice of profession, such as nursing (Erickson, 1993; Erickson & Wharton, 1995; James, 1989, 1992), and as a result, are more likely to experience negative consequences when engaging in surface acting than men (Johnson & Spector, 2007).

Stordeur *et al.* (2003) found higher job satisfaction and organisational and professional commitment respectively for women than men, whereas van der Schoot, Oginska and Estryn-Behar (2003) found higher burnout (emotional exhaustion) scores for women than for men. Although the majority of these samples were women, in these circumstances, social expectations and professional climate are factors to consider.

It is argued that results such as these may be partially explained by gender role and socialisation differences, although as the separation between gender roles becomes less clear, gender differences may no longer exist. In Italy, where gender

roles in the work and in the home may be more pronounced, women indicate significantly higher work to family conflict than men, whereas in the Netherlands, men report significantly higher work to family conflict than women. (Simon, Kummerling & Hasselhorn, 2004). In Australia, men report higher work to family conflict than women, although when hours of work are removed, women stand to experience more work to family conflict than men (Pocock, 2001).

Empirical studies on education

Education affects working life and health because it contributes to greater resources (i.e., financial, higher autonomy, higher social support, and increase in professional social status), consistent with COR theory. There is widespread agreement that higher education is linked to higher incomes (socio-economic status), in turn, related to lower clinical depression, higher physical health and lower rates in mortality (Beekman, Copeland & Prince, 1999; Wilkinson, 1997; Jones & Bright, 2001). Employees with lower occupational status tend to report more physical symptoms in describing responses to environmental factors, whereas employees with higher occupational standing may be more likely to report psychological symptoms (Jones & Bright, 2001).

A limited education is also related low job control, a well recognised job characteristic that potentially contributes to poor employee health (Fletcher & Jones, 1993; Jones & Bright, 2001), whereas an extensive educational background, along with relevant experience, may lead to a senior position in an organisation with greater job control. On the other hand, results of the National Work-life Survey in Australia reveal that participants with the worst work-life outcomes were those with post-school university qualifications, as these individuals were more likely to enter occupations associated with negative work to life spillover, such as management or the professions (Pocock, 2001).

A nurse's educational level (i.e., completion of a baccalaureate education) may positively affect professional autonomy (Andrews & Dziegielewski, 2005). However, Pelletier, Donoghue and Duffield (2005) report to the contrary, with a finding that only half to two thirds of nurse participants have sufficient autonomy

over their career and future, despite having tertiary qualifications. The majority of registered and enrolled nurses may have had similar educational backgrounds. It would therefore appear less likely that educational status would differentially affect health outcomes between nurses.

Individual Difference factors

Empirical studies on trait anxiety, negative affect and positive affect

Although controversial in relation to job selection, support exists for an association between psychological symptomatology, such as anxiety, aggressiveness, depressive symptoms and cognitive problems, and job strain (Bourbonnais, Comeau & Vazina, 1999). Between 27 and 42% of mental health nurses in the UK experience increased vulnerability to psychiatric morbidity (Tilley & Chambers, 2003). Psychological distress is therefore an important factor to consider in studying nursing populations in the UK.

The term negative affect should be distinguished from negative affectivity.

Negative affect (NA) refers to a mood state or subjectively experienced emotion that may be experienced over the duration of a week (Watson & Clark, 1985). It refers to 'a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, fear, and nervousness, with low NA being a state of calmness and serenity' (Watson, Clark & Tellegen, 1988, p. 1063), whereas *Negative affectivity* refers to the trait of negative affect, experienced over a longer duration, and is closely correlated with personality factors such as neuroticism and extroversion, as well as clinical depression[7]. Given that it is plausible that states of psychological distress, such as depression, negative affect, or positive affect may be experienced as a result of particular events,

[7] The World Health Organisation (1998) defines depression as 'a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide, a tragic fatality associated with the loss of about 850,000 lives every year.'

psychological states may be measured as outcomes. Variables such as neuroticism, depression and Speilberger's (1963) measure of trait anxiety are often used to represent negative affectivity. Trait anxiety reflects the existence of stable individual differences in relation to the anticipation of threatening situations (Schwarzer, 2001b). See Spielberger (1985) for a detailed examination of trait anxiety. A state measure of negative affect, as opposed to a measure of clinical or chronic depression will be used in this thesis.

A significant relationship between NA and psychological strain is a consistent finding in the literature (Houkes, Janssen, de Jonge & Bakker, 2003), as well as the direct effects of NA on social support, control, and physical and psychological well-being in a negative direction (somatic symptom report) (Brief, Burke, George, Robinson & Webster, 1988; Chen & Spector, 1991; Moyle, 1995).
In this section the role of negative affectivity (NA) as a trait measure in occupational health research will be discussed.

Models of the effect of NA on stress-strain relationships

The specific role NA plays in occupational stress and health is not yet confirmed. The most popular alternative models of NA are 1) the confound model, resulting in spurious correlations between stressors and strain, and revealed when NA is controlled (Watson, Pennebaker & Folger, 1987; Brief *et al*, 1988), and 2) NA as a vulnerability factor or moderator (via moderation of the perceptions of the work environment and response) (Parkes, 1990).

Moyle (1995) suggests two additional potential pathways through which negative affectivity may affect strain. They include 1) that NA may have a direct effect on strain; and 2) mediation, whereby variance from the relationship between work environment perceptions and NA is transferred to the resulting strain.

Spector *et al*. (2000) describe six mechanisms whereby NA may affect job stressors and job strains. The distinction between mechanisms also provides an explanation for why research findings vary widely. These mechanisms, described in Appendix 3.1, include the perception mechanism, the hyper-responsivity mechanism,

the selection mechanism, the stressor creation mechanism, the mood mechanism and the causality mechanism.

In the interest of brevity, only the confound and vulnerability models of NA will be discussed.

The confound model

In relation to the confound model, it may not be the impact of stressors and strains that is being assessed, but largely the influence of NA. This may be the case when measures of NA (e.g., trait anxiety and neuroticism) contain items that overlap with the items of psychological strain measures (e.g., somatic complaints). In this case, correlations between NA and strain may represent little more than shared variance between measures containing similar items (Brief *et al.*, 1988).

In light of the conceptualisation of negative affectivity, not only will individuals high on NA perceive their environment in a more negative light than those low on NA, they will also be more likely to experience stressors and be less satisfied than their counterparts, regardless of environmental conditions. The assumption surrounding this is that, over time, those high on NA will report stress, strain and dissatisfaction more often than low NA individuals. For instance, individual differences accounted for 25% of the variance in well-being scores, compared with 4-6% that were attributed to life circumstances in Costa, McCrae and Zonderman's (1987) study. Chen and Spector (1991), Schaubroeck *et al.* (1992) and Spector *et al*. (2000) support the notion that NA is more likely to bias relationships between stressors and strains when the job stressors assessed are affective and evaluative, such as stressors associated with social interactions.

The PANAS (Watson, Clark & Tellegen, 1988) contains no items relating to symptomatology that could potentially overlap with measures of psychological strain, and is therefore a reliable measure for negative affectivity. Popular measures of trait anxiety (i.e., Speilberger's (1983) State-Trait Anxiety Inventory) are also renowned for high reliability and validity, as well as discrimminant validity.

Control of NA in stress research in response to confounding

Whether NA should be controlled in job stress research is debateable, particularly given the inconsistency in study findings. Many researchers have suggested that NA should be controlled in self-report survey designs (Brief *et al*., 1988; McCrae, 1990; Payne, 1988; Watson, Pennebaker & Folger, 1987), given that high NA individuals are more likely to report higher strain than low NA individuals. Whereas NA was deemed to be a confound variable in some studies, limited reductions in the size of correlation coefficients with the control of NA were found in others (Jex & Spector, 1996; Moyle, 1995). Suppressor effects, or increases in partial correlation compared to the zero-order correlation, may also be found when NA is controlled (Cohen & Cohen, 1983; Chen, O'Connell & Spector, 1993; Spector, Zapf, Chen & Frese, 2000).

Spector *et al*. (2000) and Payne (2000) do not agree that NA is merely a nuisance factor. Instead, they argue that only shared variance is removed when NA is controlled, and that as a result, nothing more can be learned about how NA influences occupational stress or inflates relationships (Jones & Bright, 2001). In a reply to Spector *et al's* (2000) influential paper, Payne (2000) suggests that the effects of partialling out NA from analyses are small, arguing that the effect of NA is as small as less than 0.06 (unless the stressor variables concerned are high in affective content: see previous section). He also argues that the affective meaning of job demands is of greater value to a researcher than partialling out variables that appear to have little effect. Controlling or partialling out NA in occupational stress research could understate the importance of NA and the affective meaning of job demands in the job stress process.

The vulnerability model

The theory surrounding heightened reactivity to stressors by high NA individuals has strengthened development of the vulnerability model, an alternative to the confound model. In line with the *hyper-responsivity mechanism* (Appendix 3.1), the moderator or vulnerability model proposes that high NA individuals would have a heightened reactivity to environmental demands under stressful conditions compared with low NA individuals (Deary *et al.,* 1996; Jones & Bright, 2001). Heightened reactivity to

stressors is a feature of trait anxiety (Spielberger, 1983; Watson & Clark, 1984). Whereas high NA individuals are more likely to experience occupational strain via decrements in work performance, increased absenteeism and high turnover, the application of the vulnerability model may be useful in assessing whether stress interventions are effective in reducing the level of strain of those with high NA (Jones & Bright, 2001).

As discussed above, NA may not always be operationalised as a nuisance factor (Spector & Jex, 1991; Chen & Spector, 1991) and may instead play a more substantive role in occupational stress. In a similar vein, Judge, Erez, and Thoresen (2000) contend that NA may operate as a meaningful biasing factor, but question the form of bias entailed. As also argued by Spector *et al.*, (2000), they suggest that controlling for NA will not necessarily provide insights into whether NA is a negative bias, and may instead lead to unrealistic negative perceptions of stimuli, or a lack of positive bias. Moreover, it is also possible that individuals with low NA may have an unrealistic positive perception of stimuli and that the perceptions of high NA individuals may prove more accurate. In effect, previous research controlling for NA may have led researchers to believe that the strength of stressor-strain relationships should be underestimated rather than overestimated (Jones & Bright, 2001; Judge *et al.*, 2000)

On the whole, there is evidence to support both confound and vulnerability models. Research models that take into account the potentially mediating or moderating effects of NA are required. However, previous research indicates that significant interaction effects tend to be of small magnitude (in the order of 0.1-0.27 in Moyle's (1995) study). This suggests that only a small fraction of variance that is explained in strain outcome measures is attributed to NA (Moyle, 1995; Jones & Bright, 2001).

Positive affect

Positive affect (PA) 'reflects the extent to which a person feels enthusiastic, active and alert, where high PA is a state of high energy, full concentration, and pleasurable engagement, and low PA is characterised by sadness and lethargy' (Watson, Clark &

Tellegen, 1988, p. 1063). Low PA (in a state or trait form) is associated with key distinguishing facets of depression and anxiety, respectively (Tellegen, 1985; Watson, Clark & Tellegen, 1988). PA is related to optimism and locus of control, and may also influence self-deception and therefore stress perceptions (Judge, Erez & Thoresen, 2000).

Historically, stress research focused on demands and strain and neglected positive health outcomes. Despite this, research investigating the positive side of coping is increasing (Folkman & Moskowitz, 2000). Positive affect (represented by an adaptive function that may serve to buffer the effects of stress, may co-occur with negative affect during chronic stress, sometimes at the same level or at higher levels than negative affect (Folkman & Moskowitz, 2000). Frederickson (1998, p. 649), in line with Hobfoll (1998), states, 'positive emotions broaden the individual's attentional focus and behavioural repertoire and, as a consequence, build social, intellectual, and physical resources, resources that can become depleted under chronically stressful conditions'. However, coping interventions are typically more effective for problems that reside with interpersonal relationships, rather than impersonal problems to do with one's occupation. As a result, organisational level interventions may be more effective in resolving demands at work than coping interventions that have a greater role in generating positive affect (Hobfoll, 2002).

PA and NA are distinct constructs

Positive affect and negative affect (and similarly positive and negative affectivity, respectively) are considered to be affective dimensions that are distinct constructs with demonstrated discrimminant validity (Agho, Price & Mueller, 1992). Correlations between NA and PA are generally non-significant or weak, although salient associations between the two constructs are also sometimes reported (Watson, Clark & Tellegen, 1988). Watson, Clark & Tellgen (1988) suggest that the latter finding may result from the properties of the scales used to measure the underlying factors. In their large sample study of students, using Positive and Negative Affect scales for the time frame 'over the past few days,' Watson, Clark and Tellgen found low correlations between NA and PA.

PA and NA are also related to different demands, resources and strains. PA alone correlates with measures of satisfaction (including job satisfaction, social activity and frequency of pleasant events). NA however, is associated with self-reported stress and poor coping, as suggested above (Watson, Clark & Tellegen, 1988).

PA and NA are linked to emotion demands

High negative and positive affectivity may be related to emotional demands. For example, an individual with high negative affectivity may need to perform more emotion labour than his/her counterparts in the face of a challenging encounter. Personality variables could therefore be included in designs that measure emotional demands in order to help clarify relatively novel concepts such as emotion labour (Grandey, 2000; Morris & Feldman, 1996). In light of these findings, trait anxiety (representing negative affectivity) will be controlled in this research program when conducting analyses.

Work Environment variables

Empirical research on work to family conflict and family to work conflict

Role conflict

Role theory purports that individuals partaking in multiple roles that are incompatible experience role conflict. Role conflict, coined by Kahn and colleagues in 1964, and distinct from role overload, refers to the degree of discrepancy between conflicting demands of one's job, and is associated with job satisfaction and psychological distress (Dollard, 1996; Greenhaus & Beutell, 1985; Grzywacz & Marks, 2000). Inter-role conflict refers to the degree of incompatibility between roles within two different domains (i.e., home and work). Work to family conflict (or family to work conflict) is a type of inter-role conflict whereby role demands from one domain are incompatible with the role demands from another domain. That is, 'participation in the work (or family) role is made more difficult by virtue of participation in the family (or work) role' (Greenhaus & Beutell, 1985, p. 77). According to Greenhaus and Beutell (1985), work to family conflict (family to work conflict) is time, strain or behaviour based. Time-based conflict is the notion that multiple roles compete for

one's time, taking the form of time pressures to meet expectations from one role to another. Pressure may therefore result from preoccupation in one role despite physically attempting to meet the expectations of another. Strain-based conflict occurs when strain in one role affects the performance in another. Lastly, behaviour-based conflict arises when expectations regarding behaviour required for one role conflict with the expectations in another. The study of work to family (and family to work conflict) has flourished since the concept of role conflict was introduced.

Several theories have been advanced to investigate these issues in relation to stress/strain. These include Role Theory (Kahn *et al*., 1964; Greenhaus & Beutell, 1985), Scarcity theory (Goode, 1960) Spillover theory (Crouter, 1984), Expansion or Enhancement theory (Sieber, 1974) and Segmentation models (Lambert, 1990). The scarcity hypothesis (Goode, 1960) is used to predict role conflict, whereas the enhancement hypothesis (Sieber, 1974) predicts well being. There is empirical evidence to support each of these theories, although research on work to family issues is limited because of the lack of any overarching inclusive model for understanding relationships between work and family variables (Grandey & Cropanzano, 1999). Further, role theory has failed to include family roles in its model. Previous research had given little attention to the benefits of combining work and family, although research examining the benefits of multiple roles has increased in recent years (Boles, Johnston & Hair, 1997). See Kopelman, Greenhaus, and Connolly (1983), Barnett (1998), Boles, Johnston and Hair (1997), Hammer, Hanson and Colton (2004) and Summer and Knight (2001) for a detailed discussion of theories of role stress/strain.

Empirical work on work to family conflict (WFC)

Work to family conflict is reported to be one of the ten major stressors in the workplace given that the work and home domains are strongly related to the perceptions and attitudes of the workplace (Simon, Kummerling, & Hasselhorn, 2004). However, in comparison with literature of work-related role stress, work to family conflict (WFC) has received limited attention (Boles, Johnston & Hair, 1997; Peeters *et al.,* 2004). Work to family conflict may result from time spent away from shared family events, routines and outings due to working evenings and weekends, where social relationships, parent involvement and responsiveness to children could

be negatively affected. In relation to time-based strain, Barnett (1998) and Hammer *et al.* (2003) indicate that there is no definition of what an appropriate time (in hours) to spend with family or at work is; what may be considered too much or too little to some individuals may be perceived by others as optimal. On the other hand, the number of work hours is considered to be a relevant variable for consideration**,** given that work to family conflict mediates the relationship between part time work and well being (Hellgren *et al.,* 2003; Rijwijk, Beller, Rutte & Croon, 2004).

Both direct and indirect links between work to family conflict and work burnout have been observed (Cordes & Doherty, 1993). Montgomery, Peeters, Schaufeli and Den Ouden (2003) surveyed 69 newspaper managers on the influence of work-family interference on burnout and engagement. Work to family interference (a variation of work to family conflict) mediated the relationship between emotional job demands and exhaustion and cynicism, respectively.

Work to family conflict is closely aligned with work organisation and structure as well as organisational culture conditions (Greenhaus & Beutell, 1985; Simon, Kummerling, & Hasselhorn, 2004). Likewise, Mesmer-Magnus and Viswesvaran (2004) predicted that organisational commitment would have strong associations with both WFC, given that highly committed workers are likely to be more involved in their roles. However, they found only a weak relationship between organisational commitment and WFC. Other studies have found associations between WFC and absenteeism (Goff, Mount & Jamison, 1990; Thomas & Ganster, 1995), family and life satisfaction, and negative mental and physical health (Boles, Johnston & Hair, 1997; Frone, 2000; Frone, Russell & Cooper, 1992; Thomas & Ganster, 1995; Hellgren, Naswall, Sverke & Soderfeldt, 2003).

In general, empirical research among the nursing profession suggests that work demands (time or strain based) have a strong association with work to family conflict. According to Burke and Greenglass (2001), the continuity of care required in acute care settings (involving irregular working hours), the nursing shortage (giving rise to an increase in demands and workload), as well as the requirement that nurses perform high levels of emotion labour may result in work to family conflict. Burke and Greenglass' (2001) findings were consistent across all participating European

countries, strengthening the validity of their study. Further, role conflict among nurses is linked to low job performance when combined with low self-esteem, as well as nurse job dissatisfaction and ultimately, nurse turnover (Burke & Greenglass, 2001; Mossholder, Bedian, & Armenakis, 1981; Randle, 2003; Tiley & Chambers, 2003).

Empirical work on family to work conflict (FWC)

As the work role invokes a substantial component of one's life, life satisfaction may be affected if there are interruptions to the work role by family demands (if family demands begin to impinge upon work commitments). For example, family-related role demands appear to affect absenteeism from work to a greater degree than work-related demands (Mesmer-Magnus & Viswesvaran, 2004). For example, excessive family care responsibilities (e.g., illness of a child) coupled with ongoing work demands may result in an employee requesting to utilise their sick leave entitlements in order to manage the situation (i.e., caring for the child instead of attending work).

Although non-work antecedents tend to be more strongly associated with family to work conflict (hours not spent at work, family stress, number of children and marital status), the differences are not always significant, with some non work factors relating equally to both work to family conflict and family to work conflict. This is not surprising given that the work domain largely contributes to overall well-being or poor health.

FWC correlates more strongly with job dissatisfaction than WFC for women, holding implications for women who are more likely to have their work role affected by family demands (Mesmer-Magnus & Viswesvaran, 2004). Thus, although mean values of family role stressors are on the whole lower than occupational role stressors, consequences of family role stressors for the psychological well-being of women are argued to be more severe. In addition, participation in multiple roles is thought to positively exacerbate the effects of parenthood on stress (Kandel, Daveis & Raveis, 1985).

Work to family and family to work positive spillover

Other concepts of the work to family (family to work) interface increasingly studied are work to family (family to work) spillover[8], work to family (family to work) enrichment, and work to family (family to work) facilitation. Distinctions between the concepts have not been well understood, although differences and similarities between the concepts are outlined in previous literature (see Hanson, Hammer & Colton, 2006 for review). The concept of work to family (family to work) positive spillover will be discussed.

The concept of positive spilllover is one of the three mechanisms linking work and family domains, in addition to segmentation and compensation. Spillover refers to 'the transfer of affect, skills, behaviours, and values from one domain to the other, such that there is a positive relationship between experiences in the two domains….broken down further into positive and negative spillover' (Hanson, Hammer & Colton, 2006, p. 4).

Empirical work on work to family and family to work positive spillover

Similar to research on WFC and FWC, a number of studies have investigated the effects of negative spillover from work to home on psychological distress, although not from home to work, and fewer have addressed positive spillover in either direction (Kirchmeyer, 1992). Under certain conditions, both family and work outcomes may be enhanced, although these conditions have not yet been determined (Barnett, 1998).

Whilst the reduction of work to family negative spillover is associated with better health, increased work to family positive spillover is associated with improved mental health, wellbeing, role performance, job satisfaction and family satisfaction (Grzywacz, 2000; Grzywacz, Almeida, & McDonald, 2002; Hanson, Hammer & Colton, 2006). Montgomery *et al.* (2003) report negative direct effects between availability of work and home resources, often achieved via positive spillover, and the outcomes work engagement and reduced burnout.

[8] Positive spillover refers to 'the transfer of affect, skills, behaviours and values from one domain to the other such that there is a positive relationship between experiences in the two domains. Spillover is broken down further into positive and negative (e.g., problematic) spillover.' (Hanson, Hammer & Colton, 2006, p. 4).

Barnett and Marshall (1992) conducted a three wave longitudinal study over two years on a sample of 403 nurses and social workers and found a positive spillover effect from work to parenting, such that having a rewarding job negatively mediated the relationship between mental health and poor mother-role quality. These findings support Kandel, Daveis and Raveis (1985) and Barnett and Baruch's (1985) findings. This strong research suggests that women may experience benefits from performing multiple roles that outweigh the stressfulness of some of their roles, and that stress experienced in one role may be alleviated by participation in another.

High involvement in roles that are deemed to be central to one's identity is associated with positive spillover. The quality (assessed via satisfaction, involvement and time commitments) of different types of non-work roles (parenting, community and recreation) may also influence positive spillover ratings (Kirchmeyer, 1992). For example, non-work roles such as community work can assist in developing managerial skills, such as delegation, teamwork, and presenting ideas. Parenting may also assist with learning how to manage one's time and in learning to be patient, contributing positive effects to relationships between work resources (i.e., job autonomy) and positive work, to family spillover (Kirchmeyer, 1992; Voydanoff, 2004).

Hanson, Hammer and Colton (2004) developed a multidimensional scale of work to family and family to work positive spillover and validated the constructs. Work to family (family to work) positive spillover was broken down into 6 sub-dimensions. The authors found that 'affective (mood)' positive spillover was greater from work to family, whereas 'instrumental' and 'values' positive spillover was greater from family to work. Instrumental (skill) positive spillover from family to work was associated with family satisfaction, whereas value positive spillover was associated with increases in both work and family satisfaction. Implications of work and family satisfaction, arising from positive work to family and family to work spillover, respectively, include benefits for the individual employee as well as the organisation.

Maximising positive spillover, while reducing negative spillover, is therefore in the best interests of individuals, families and organisations (Behson, 2002; Hanson,

Hammer & Colton, 2006; Tyler & Ellison, 1994). In particular, work to family and family to work positive spillover, respectively, are factors that are highly relevant, and potentially have positive effects on health care workers, such as nurses. Affective, instrumental and values positive spillover are likely to be transferred from health care occupations to non-work life and vice versa.

A focus of the research program is on forms of emotional expression that exist between nurses, colleagues and patients, and that operate as resources. Emotion labour is a form of emotional expression that has been investigated in previous research. Previous research indicates that the performance of emotion labour is linked with negative outcomes such as stress and emotional exhaustion. Although a second form of emotion expression, emotion work, has been explored among service workers (Strazdins, 2000), the construct has not been investigated amongst a single sample of Australian hospital nurses, and in light of other stressors and resources. Given that emotion work may be likened to a resource, it is predicted that emotion work will buffer or reduce the negative effect of occupational strain in hospital nurses.

3.1.1 Exploratory analysis and Hypotheses

Exploratory analysis: *That emotion labour and emotion work, conceptualised as different constructs, will differ in their predictive power with regard to individual health and organisational outcomes* (to be examined via quantitative and qualitative methodology). The individual and organisational outcomes studied include positive affect, negative affect, depression, stress, personal burnout, work-related burnout, patient-related burnout, job satisfaction, affective commitment, self-reported absenteeism and workers compensation claims.

Based on previous research, the hypotheses for the first study are:

Hypotheses 1: *That emotion work and emotion labour will each make a significant contribution to the studied individual and organisational outcomes when other individual and organisational level factors are controlled.*

Hypotheses 2**:** *That overall, emotion labour will be more strongly associated with the studied individual and organisational outcomes than emotion work.*

Hypothesis 3: *That performance of emotion labour will explain more variance in negative outcomes than performance of emotion work* (as shown in Table 3.1 below).

Table 3.1

Predicted associations (and expected directions) between Emotion Labour and Emotion Work and the studied Individual Health and Organisational Outcomes

Variable	Emotion Labour (Expected direction)	Emotion Work (Expected direction)
Positive Affect	-	+
Negative Affect	+	-
Depression	+	-
Stress	+	-
Personal Burnout	+	-
Work-related Burnout	+	-
Patient-related Burnout	+	-
Job Satisfaction	-	+
Affective Commitment	-	+
Self-reported Absenteeism	+	-
Self-reported Injury and Workers Compensation Claims	+	-

Hypothesis 4a: *That emotion labour requirements, such as positive emotion expression and negative emotion suppression will reflect the use of the emotion labour strategy of surface acting, and will in turn, predict work-related burnout.*

Hypothesis 4b: *That emotion work performance, such as companionship, help and regulation, will relate to emotional consonance, inherent in the emotion labour strategy deep acting, and will in turn, lead to job satisfaction.*

Hypothesis 5a: *Performance of emotion work by nurses will vary depending on the nursing specialty area; nurses from specialty areas in which patients are likely to remain longer and where more interaction between nurses and patients is likely to take place, will perform more emotion work.*

Hypothesis 5b: *Given that emotion labour performance may be an organisational requirement, the amount of emotion labour is expected to not differ across specialty areas of nursing.*

Hypotheses 6: *The development of individual health and organisational outcomes will vary depending on the nursing specialty area, and this will be reflected by significant differences in the individual health and organisational outcomes between nursing specialties.*

CHAPTER THREE
METHOD OF STUDY ONE

3.2.1 Participants

The participants were 238 nurses drawn from a public metropolitan hospital in South Australia. The nurses were recruited from specialty areas that included general medicine (general medical wards, stroke and neurology ward, and outpatients department), oncology (with wards for haematology, medical oncology, breast and endocrine and surgical oncology) cardiovascular services (renal, renal dialysis unit, cardio thoracic, coronary care, cardiac ICU, and vascular wards), orthopaedics and trauma services (spinal, and general orthopaedics wards), and critical care services (intensive care, emergency and high dependency departments and recovery wards). For recruitment information, see Procedure (section 3.2.3).

3.2.2 Measures

In addition to the concepts of emotion labour and emotion work the research program investigated other risk factors and resources to nurse occupational health. These are shown in Table 3.2. Empirical research on variables that have not been previously discussed is also presented. As will be seen, the variables that were measured in the first study that did not contribute to strong effects were removed and replaced by the variables intention to leave and autonomy in the second study (see Chapter 5, section 5.2.2).

Table 3.2

Summary of Risk Factors and Resources of Nurse Occupational Health studied in the research program

Measured variables	Authors
Demographic Factors: Including Age, Gender, Education, and Working Status	Compiled by the researcher
Individual Difference Factors: Trait Anxiety, Negative Affect and Positive Affect	**The State-Trait Anxiety scale* (Spielberger, 1983) **The PANAS Inventory* (Watson, Clark & Tellegen, 1988) **The Depression and Anxiety Stress scales* (Lovibond & Lovibond, 1995**)**
Work to Family Conflict (WFC)	**The Work and Family Demands scale* (Goff *et al.*, 1990; Kopelman, Greenhaus & Connolly, 1983)
Family to Work Conflict (FWC)	Same as above
Work to Family Positive Spillover (WFPS)	**The Multidimensional Work-Family Spillover scale* (Hanson, Hammer n& Colton, 2006)
Family to Work Positive Spillover (FWPS)	Same as above
Social Support from supervisors	**The Multi-dimensional Support scale* (Winefield, Winefield & Tiggemann, 1992)
Social Support from colleagues	Same as above
Social Support from friends/family	Same as above
Autonomy	**The Autonomy Scale* Adapated from Breaugh (1985)
Emotion Labour (requirements and regulation strategies)	**The Emotional Labour scale* (Brotheridge & Lee, 2003)
Emotion Labour (feigned positive emotion)	**The Emotion Work Requirements scale* (Best, Downey, & Jones, 1997)

Emotion Labour (suppression of negative emotion)	Same as above
Emotion Work (Companionship)	**The Emotional Work Inventory* (Strazdins, 2000)
Emotion Work (Help)	Same as above
Emotion Work (Regulation)	Same as above
Stress	**The Nursing Stress Index* (Harris, 1989)
Personal Burnout	**The Copenhagen Burnout Inventory* (Borritz & Kristensen, 1999)
Work-related Burnout	Same as above
Client-related Burnout	Same as above
Job Satisfaction	**The Job Satisfaction scale* (Warr, Cook & Wall, 1979),
Affective Commitment	**Affective commitment* (Allen & Meyer, 1990)
Intention to Leave	Adapted from Meyer, Allen and Smith (1993).
Self-reported Absenteeism	Compiled by the author
Workers Compensation Claims	Compiled by the author

The Questionnaire

The survey (cross-sectional) utilised 14 questionnaires based on dispositional and psychosocial variables previously reported in the literature to contribute to variance in health and organisational outcomes for nurses. The outcomes included positive affect, negative affect, depression, stress, burnout, job satisfaction, organisational commitment (affective commitment), subjective absenteeism, and workers compensation claims (Appendix 3.5).

Scales that maintained adequate internal and factorial reliability in previous studies were included. New scales were either added as extensions to existing published questionnaires or were part of the demographic questionnaire, tailored to

the sample. The order of measures throughout the package was varied, in order to counter for position or sequence bias. However, the position and format of items in each questionnaire was left unchanged. For both methodological and practical reasons, only self-report measures were included.[9]

Demographic variables

The demographics questionnaire contained 13 items and asked participants to indicate their age, gender, marital status, number of children, whether family members outside of their immediate family were living with them, working status, type of shift worked, type of ward, hospital location, duration of employment at the current hospital, current position, number of years in employment in current position and educational background. Participants were also asked to indicate the types of roles they regularly performed outside of work, including friend, extended family member, carer for aged parents, volunteer spouse, and parent. As stated below, the items were developed subsequent to preliminary interactions with nursing staff and hospital management.

Personality variables

The State-Trait Anxiety scale (Spielberger, 1983), assessing trait anxiety, contains 20 items with rating scale 1 = 'almost never' to 4 = 'almost always.' Statements are rated with respect to how one generally feels. An example item is *'I wish I could be as happy as others seem to be'*. The reliability coefficients ranged from .65-.86. The personality variables that were measured as outcome variables are discussed below.

Psychosocial variables

The Work and Family Demands scale (Goff *et al.,* 1990; Kopelman, Greenhaus & Connolly, 1983) contains 16 items measuring work to family and family to work conflict. This inter-role conflict scale is based on Pleck *et al*. (1980). The three most prevalent of Pleck's seven types of work to family conflict include excessive work

[9] Despite limitations of common method variance, self-report based methodology is deemed acceptable and in many cases, more predictive of health outcomes than other methods, such as peer ratings and physiological data gathering methods (Lazarus & Folkman, 1984). In addition, although a methodology tailored to nursing staff at the participating public hospital would have been ideal, the political and controversial nature of the topic area, budgetary constraint, preferences of nursing directors, as well as the researcher not having specific links to the organisation or profession, did not permit sufficient contact with participants.

time, schedule conflicts and irritability. The scale ranges from 1 = 'strongly agree' to 5 = 'strongly disagree.' An example question from the scale is *'My family dislikes how often I am preoccupied with my work while I am at home'*. Internal consistency reliability estimates for the scale reported in Hammer, Bauer & Grandey (2003) study were .83 for work to family conflict and .82 for family to work conflict.

The Multidimensional Work-Family Spillover scale (Hanson, Hammer, & Colton, 2004) was recently developed and considers the positive aspect of work to family and family to work spillover. It contains 22 items with a 5-point scale (strongly agree = 1 to strongly disagree = 5) assessing work to family spillover (items are reversed for family to work spillover) via the transference of skills, values and mood (affect) from one domain to the other. The sub-dimensions of work to family affective positive spillover: work to family instrumental positive spillover (including behaviours and skill transference), work to family values positive spillover, family to work affective positive spillover, family to work instrumental positive spillover, and family to work values positive spillover produced alpha coefficients of .90 or above, indicating reliability requirements were maintained. Example items for affect, values, and skills for work-family/family-work respectively are '*When things are going well at work/at home, my outlook regarding my family/work life is improved'* (affect), *'Skills developed at work/family, help me in my family/work life'* (skills), and *'I apply the principles my work/family values in family/work situations'* (values). The sub-dimensions of values, affect and instrumental skills were combined to form measures of work to family and family to work positive spillover. These scales were selected based on a consideration of the positive as well as the negative work to family and family to work interface.

The Multi-dimensional Support scale (Winefield, Winefield & Tiggemann, 1992) contains 16-items and a 4 point scale ranging from 'never' = 1 and 'usually' = 5, and a 3-point scale ('would have liked more,' 'less,' 'right'). The questions pertain to the kind of help and support one has available to him/her in coping with his/her work and non-work life. An example item is *'How often did you feel that they were trying to understand your problems?'* All reliability coefficients exceeded .80.

The Emotional Labour scale (Brotheridge & Lee, 2003) contains 15-items and a 5-point scale ranging from 'never' = 1 to 'always' = 5. The questions relate to the expression of emotions at work and the extent to which one must hide or suppress emotions in order to be effective on the job. Six aspects of emotional display are measured, including frequency, intensity, variety of display, duration of the interaction, and surface and deep acting. An example of an item from the deep acting subscale is *'Really try to feel the emotions I have to show as part of my job'*. Internal consistency for the scale was estimated to range from .74 to .91. Eight of the 15 items were used, with at least one item focusing on each aspect of emotion labour, including frequency (1 item), intensity (item), duration (1 item), variety (1 item), deep acting (2 items), surface acting (2 items). The items in this scale were reworded for relevance to the nursing profession, and to eliminate the unfavourable conception that nurses 'act' or fake' on the job. For example, the item '*Pretend to have emotions that I don't really have'* was reworded to state, *'Express emotions I don't really have'*.

The Emotion Work Requirements scale (Best, Downey & Jones, 1997) comprised 7-items, with a 5-point scale ranging 'not at all' to 'always required'. The scale assesses the requirement to display positive and negative emotions, respectively, the requirement to suppress and control emotions in order to be effective on the job, as well as the extent to which emotional displays influence work performance. In Best, Downey and Jones' (1997) study, internal consistencies for the two factors were .78 for the first factor and .77 for the second. An example of an item for the requirement to display positive and negative emotions is *'Reassuring people who are distressed or upset'*, and for the suppression of emotions, *'Hiding your fear of someone who appears threatening'*.

The Emotional Work Inventory (Strazdins, 2000) is a 5-point scale ranging from 1= 'not at all' to 5 = 'frequently or most of the time' and comprises 21 items. The items relate to components of emotion work, including companionship (enhancing others' positive emotions, closeness, and social integration), help (helping others' negative emotions, repairing relationships, and mediating and managing conflict) and regulation (regulating others' emotional control, and regulating disruptive social behaviour). Participants are asked to indicate whether interactions encompassing the three components of emotion work, as represented by the items, can

be ascribed to relationships with patients, relatives and friends within both their work and non-work domains. An example of an item for companionship is *'How often have you shared your innermost thoughts and feelings with…'* (closeness). Strazdins reported that internal consistency for the scale ranged from .91 to .94.

Changes were made to the Emotional Work Inventory (Strazdins, 2000) for the purposes of this research. The first part of the questionnaire was retained (i.e., where participants were asked to indicate how often they performed emotion work in different situations). However, in the second part participants were then asked to indicate whether they performed emotion work at work, home, or both work and home, instead of indicating whether they were performing emotion work as part of a particular role (i.e., spouse). The questionnaire was altered so that the performance of emotion work within the work and home domains could be explored.

Dependent variables

The PANAS Inventory (Watson, Clark & Tellegen, 1988) is a 5-point, 20-item mood scale with time instructions. Positive affect comprises one 10-item scale (scored in a positive direction) and negative affect another 10-item scale (also scored in a positive direction). The items contain 20 feeling words and participants are asked to indicate the extent to which certain emotions depicted by the feeling words were felt during the past few days. An example of one of the feeling words is '*Inspired*'. The alpha reliabilities reported are high, and range from .86-.90 for positive affect and .84-.87 for negative affect.

The Depression and Anxiety Stress scales (DASS) (Lovibond & Lovibond, 1995) comprises 21 items, with a rating scale from 0 = 'did not apply to me at all' to 3 = 'applied to me very much,' or most of the time). The questions pertain to how often symptoms, relating to depression, anxiety or stress, had been experienced in the previous week. Only the depression (7-item) subscale was used. An example item for the depression subscale is *'I felt that life was meaningless'*. The internal consistency for the depression subscale of the DASS was reported to be .96-.97 (Lovibond & Lovibond, 1995).

The Nursing Stress Index (Harris, 1989) assesses nurse work-related stressors. This 5-point scale includes 30-items and relates to the extent nurses experience pressure as a result of certain situations associated with the nursing occupation. However, only 24 items were utilised, as 1 subscale 'Home/Work Conflict' was removed. Two subscales were labelled 'Managing the Workload.' Managing the Workload (1) includes items representing time pressures and deadlines, being set back by trivial tasks, constantly 'fighting fires' and the demands of others for time at work. An example of an item is *'Trivial tasks interfere with my professional role'*. Managing the Workload (2) includes items describing fluctuations in workload, management intervening with completion of work, deciding priorities, nursing and administration roles in conflict, and shortage of essential resources. *'My nursing and administration roles conflict'* is an example of an item.

The 'Organisational Support and Involvement' subscale includes items describing lack of opportunity for participation in decision-making, nurses' needs being ignored, relationships with supervisors, lack of social support, and lack adequate performance feedback. An example item is *'Decisions or changes which affect me are made 'above' without my knowledge of involvement'*. The 'Dealing with Patients and Relatives' subscale comprises items indicative of death and dying, problematic patients, and interacting and providing bereavement counselling for relatives. An example item is *'Involvement with life and death situations'*.

Lastly, 'Confidence and Competence in the Role' encompasses items focussing on nurse confidence in the role, as well as ability to perform various tasks outside of their competence, cope with new technology, and certainty regarding the degree or area of his/her responsibility. *'Bringing about change in staff/organisation'* is an item incorporated into the scale.

The Copenhagen Burnout Inventory (Borritz & Kristensen, 1999) measures personal, work-related and patient-related burnout, and contains 19-items and a 5-point scale, ranging from 'always' to 'never' for the personal and work-related burnout subscale and from 'a very high degree' to 'a very low degree' on the patient-related burnout scale. The questions relate to the experience burnout symptoms. Examples of an items for each burnout scale is *'How often do you feel tired?'*

(personal), *'Do you find it hard to work with patients (patients)?'*, *'Do you feel burnt out because of your work?'* (work). Internal consistency estimates in the literature ranged from .73 to .93 (Winwood & Woodward, 2004).

The Job Satisfaction scale (Warr, Cook & Wall, 1979) contains 16-items and a 7-point scale ranging from 'I'm extremely dissatisfied' to 'I'm extremely satisfied.' The questions relate to satisfaction with particular characteristics of a person's job. An example item is *'The recognition you get for good work'*. The alpha coefficients reported ranged from .79-.85.

Affective commitment [based on Allen & Meyer's, (1990) 3-component organisational commitment scale, comprising affective, normative and continuance commitment] is a subscale of 8 items, with a 5-point rating scale from 'strongly disagree' (1) to 'strongly agree' (5). Based on a factor analysis conducted by Allen and Meyer, (1990), the researchers included only those items with factor scores great than .60. These items comprised 4 out of the 8 items originally proposed by Allen and Meyer. The scale measures identification and involvement with an organisation. Affective commitment was scored in a positive direction. An example item for the scale is *'The organization has a great deal of personal meaning for me'*. Reported internal reliability for the subscale was .79.

Self-reported absenteeism and workers compensation claims

The last section included two items relating to the work history of each participant. The item representing absenteeism was '*How many days were you absent from work in the last financial year?'* A period of one year was selected to ensure stability in relation to absenteeism (Bakker, Demerouti, de Boer & Schaufeli, 2003a; Hammer & Landau, 1981). The items representing workers compensation claims were *'Have you ever made a workers' compensation claim?' 'If so, what reason was the claim made (e.g., stress, back injury)?'*

On completion of the questionnaire a closed question: '*Is there anything else you would like to add regarding you work and how it affects you? If so, please add your comments here'* was included for the purpose of permitting the inclusion of

information not previously considered by the researchers. The data obtained from this section was treated as qualitative data.

Pilot test of the questionnaire

The questionnaire package was piloted with 10 nurses working in a different nursing specialty area from the sample, within the hospital that was surveyed. Feedback from the pilot was used to adjust and amend the questionnaire. Advice was also sought from academics that were nurses and/or trained nurses via tertiary institutions. The questionnaire was piloted for clarity, preciseness, and relevance to the nursing group involved (Panagopoulou & Maes, 2003). Where possible, items were worded to maintain relevance to nursing work. Items of scales that appeared to be repetitive were removed if it was anticipated that this practice would not significantly alter the psychometric properties of the scales.

Ward statistics measure

On completion of data collection, the researcher devised a set of questions to ask the manager/s of each ward, in order to gain a better understanding of how the five nursing specialties differed according to staff numbers, patient mix and staff attrition. Nurse managers were either approached in person once the remaining questionnaires were collected from ward tea rooms, and/or via e-mail.

The questions were as follows:

1. How many nursing staff are there in this ward, including full time, part time and casual nurses?

2. How many nursing staff would typically be on shift during the morning, afternoon and late shifts?

3. What is the average length of stay of patients

4. What is the retention rate of nursing staff in the area?

3.2.3 Procedure

Recruitment

It was decided that a research sampling design that focused on individual hospitals was preferable to the recruitment of small numbers of nurses, each from various worksites. This would limit the confounding of variables between differing work environments, patient mix and management practices.

In the first instance the researcher sought ethical approval from both the Human Research Ethics Committee of the hospital sampled (reference number 041007), as well as the Human Research Ethics Subcommittee for the School of Psychology of the University of Adelaide (reference number 04083). Ethical approval was granted from both committees.

After ethical approval to conduct the study had been granted, the Director of Nursing of the hospital was contacted via telephone and a request was made to undertake a project at the hospital. Once permission was given to undertake the project, clarification of possible methodologies, deemed acceptable by the Director of Nursing, was sought. The researcher considered that observation of interactions between nurses and patients could complement a questionnaire study. However, due to time constraints on the nursing staff involved, as well as confidentiality concerns of management, a single questionnaire based design appeared to be the most appropriate method. Compared to a self-report subjective method of investigation, other objective methods (e.g., measures of health status) proved costly, time consuming, and difficult to implement due to confidentiality concerns. The researcher was prudent not to approach nursing staff in a manner that may interfere, interfere or compromise nursing work, as requested by the Director of Nursing. As a result, minimal contact with nursing staff would be made outside of tea rooms and staff meetings.
In principle support for the project was also obtained from the Australian Nursing Federation.

Power analysis and sample size planning

Power analysis, measuring the power to distinguish an effect requires an assumed population parameter of effect sizes. Cohen (1988, 1992b) provides guidelines for the

social sciences with regard to effect sizes. Effect size calculation varies depending on the inferential test. Cohen's effect size measures are well known in research and can be classified as small, medium or large. In order to determine the minimum number of questionnaires to be returned to attain sufficient statistical power, with a medium effect size (alpha = .05 & power = .80/beta = .20), the sample size needed was calculated for each of the inferential statistical analyses.

Multiple regression

According to Green (1991), to calculate the required sample size for a multiple regression based on a medium sized relationship, N > 50 + 8m (m representing number of predictor variables) is the specified equation for the overall correlation and N > 104 + 20 is the specified correlation for calculation of the predictive power of an independent variable on a dependent variable. Researchers are advised to select the larger value when interested in both the overall correlation and predictive power of individual variables. Given that a maximum of 20 predictors at any one time would be analysed, the corresponding sample sizes were 210 for the overall correlation and 124 for the predictive power of the individual variables. Two hundred and ten was therefore the minimum sample size required for a multiple regression analysis.

Factorial ANOVA

A minimum of 30 participants per cell would be required to lead to 80% power (the minimum suggested power for an ordinary study) (Cohen, 1988). For five cells the minimum number of participants required would be 150.

Structural Equation Modelling (SEM)

To achieve 80% power with degrees of freedom > 20, there should not be fewer than 100 participants.

Factor analysis

A minimum of 50 participants per factor is required (Pedhazur & Schmelkin, 1991). However, 200 participants is considered fair and 300 desirable (Comrey & Lee 1992;

Tabachnick & Fidell, 1996). Consequently, it was determined that a sample size of over 210 participants overall was desired.

Data collection procedures

On commencing the project, a contact clinical nurse manager from the hospital was telephoned and the researcher sought advice on the hierarchical structure, employment position titles and educational background related to those titles, typical working status, shift work times, general information in relation to the number of nurses at the hospital, the number of nurses within each specialty area, as well as how participants could best be contacted.

The amended aims and design of the study were provided to the Director of Nursing. The names of the nurse managers from each specialty area of the hospital were sought and letters were sent to invite nurse managers to participate, along with a copy of the proposed questionnaire package, information sheet and flyer (Appendices 5.2, 5.3). Nurse managers were invited to suggest amendments that could be made to the questionnaire, if appropriate. It was reiterated that participation in the study was voluntary, anonymous, that confidentiality would be maintained, and that a feedback report would be provided to participants.

Five nurse managers, representing five nurse specialty areas, agreed to participate. These specialty areas included general medicine, oncology, cardiovascular services, orthopaedic services and critical care. Wards included outpatient areas and day wards of the specialty areas. An arrangement was made with each nurse manager that questionnaires would be either placed in the tea rooms of wards of each nursing specialty, or alternatively placed in staff pigeon holes. In addition, each clinical nurse consultant of each of the 21 wards was asked permission to place questionnaires in their area, were informed about the study aims and proposed procedures, and basic demographic questions pertaining to numbers of questionnaires to be distributed were asked.

Briefing meetings to introduce the purpose of project were arranged with nurse managers and clinical nurses of two of the five nursing specialties. Four of the nursing

specialties in the hospital were sampled first (as the directors from these areas were the first to respond to letters). Two months later (following a response to the letter), the fifth specialty was sampled, using unused questionnaires from the other four areas.

An advertisement of the project appeared in the tea rooms of the hospital wards, were posted around the hospital, and appeared on the Australian Nursing Federation monthly members' website. Each questionnaire contained an information sheet and a return addressed reply paid envelope. The proposed duration of the study was two months. Nurses were invited to contact the researchers to talk about the project.

Nurses were encouraged to fill out as much of the questionnaire as they could, leaving sections blank in the case of time constraints, or if they felt discomfort with regard to responding to particular questions. They were informed that they could withdraw from the project at any time. Given the project's anonymity, coding of questionnaires was limited, although sufficient enough to allow the researchers to determine the response rate by nursing area. It was decided that coding by individual nursing wards could lead to unwanted identification of nurses. Questionnaires were therefore coded on the basis of nursing specialty area only, and nurses, clinical nurses, and clinical nurse managers were informed of the coding process at the commencement of the project.

The researchers followed the recommendations of Dillman (2000) in the follow up of initial questionnaire distribution. Due to the voluntary nature of participation and the anonymity of respondents, it was not possible to trace respondents that had completed the questionnaire, so that follow up letters could be sent to those who had not yet responded two weeks later. However, when invited by nurse managers, regular presentations were given to nursing staff in tea rooms during work breaks and during staff meetings, in order to outline the project's aims and benefit to nursing staff.

Regular visits (at least every two weeks) were made to nurse tea rooms to monitor questionnaire completion (e.g., checking the box where surveys were originally placed for completed questionnaires not returned via mail), as well as for

the purpose of altering information on the flyers (e.g., reminding nurses of the project closing date). The majority of responses were received in the first two weeks of distribution. As the number of returned questionnaires relative to distributed questionnaires was below 50%, the researchers made attempts to encourage nursing staff where possible. Apart from providing presentations to staff, examples included offering a prize to the specialty area with the largest number of respondents, requesting that nurse managers and clinical nurses encourage nurses to complete the surveys, or reminding nursing staff about the project by placing a copy of the flyer in nursing ward communication books. Raw data of nurse turnover over the past 12 months was unable to be collected from the hospital.

CHAPTER FOUR
RESULTS OF STUDY ONE

In this chapter descriptive statistics, univariate data analyses, exploratory factor analyses, bi-variate correlation analyses, multivariate analyses and a thematic analysis will be presented in accordance with the hypotheses examined in the research program. A discussion of the findings will then follow.

4.1.1 Response rate and representativeness

A total of 884 nursing staff represented five functional units at the large public hospital. Six hundred and four questionnaires were distributed overall. Two hundred and eighty one unused questionnaires were removed from the four functional units in order to be re-used for distribution in the fifth. However, only 240 were required. The overall response rate represented by the sample of two hundred thirty eight participants was therefore 39%. For each functional unit the response rates varied from 23.75 – 53.62%, and are shown in Table 4.1. One participant did not identify their location. There were 202 females and 35 males, and 1 participant who did not indicate their gender. The mean age was 36.78 (SD = 9.79) years.

Table 4.1
Location of Respondents and Response Rates

Location	Size of population	Total survey returns	Response Rate (%)
Medical Wards	97	51	52.6
Cancer	69	37	53.6
Cardiovascular	128	58	45.3
Orthopaedics	70	34	48.6
Critical Care	240	57	23.8
Total	604	237 (+ 1 unknown location) 238	39.5

Due to a response rate of less than 50%, a comparison was planned between respondents and non-respondents with respect to demographic variables such as gender, age, work tenure, and days absent. However, upon request, this information was unavailable for access. Subsequently, a test of representativeness of the sample was conducted with regard to the observation of gender only (with a count of the

number of male nursing staff observed on wards), given that this was the only demographic information that could be accessed. The number of male nurses working the morning shift in each nursing area was counted during an observation, and proportions of the two populations were derived and compared. The denominator did not total 238 as the Critical Care area was exempt at the time of observation. Due to the type of data accessible and in order to test two population proportions an alternative z-test equation was used (Fleiss, 1981).

Using this formula, the number of males for the sample dataset was 23/180, whereas the number of males counted during the head count round was 17/56. The z^1 statistic value calculated was 1.93, which does not fall outside the range –1.96 and 1.96. This indicated that there was a non significant difference between the sample population, and the general population of hospital nursing staff, observed at random. It was therefore assumed that the current sample (with the critical care area omitted) represents the overall nursing population at the large public hospital with respect to gender.

4.1.2 Descriptive statistics

Demographic characteristics

Of the sample, ninety-nine respondents were married (41.9%), 58 were single (24.6%), 56 had a partner (23.7%), were living together or engaged, 22 were divorced/separated (9.2%), and 1 was widowed (0.4%) (N=236). One hundred and fifty-three nurses had no children under 18, (65.4%), 23 had one child (9.8%), and 58 had 2 children or more (24.8%). Of the participants that had children, ninety participants (38.5%) had children living with them (N=234). Thirty (12.8%) participants had other immediate family members living with them.

Twenty-four (10.2%) nurses had completed hospital training as part of their educational background, 32 (13.6%) had a nursing qualification from TAFE college[8], 141 (59.7%) had a university degree, 65 (27.5%) had completed a graduate nursing program and 49 nurses (20.7%) indicated that they had other qualifications (e.g.,

[8] TAFE college is a tertiary education and trades college in South Australia.

diplomas) aside from general nursing qualifications (many respondents indicated more than one qualification).

One hundred and twenty nine participants (55.6%) worked full time, while 104 (44.4%) worked part time (N=234). Twenty-four nurses (10.2%) worked a 7-8 hour morning shift only, 9 (3.8%) nurses worked a 7-8 hour afternoon shift only, and 20 (8.5%) nurses worked night duty only. One hundred and twenty (51.0%) nurses worked regular rotating morning, afternoon and night shifts, 27 (11.5%) nurses worked morning and evening shifts only, 1 (0.4%) worked morning and night duty only, and 1 (0.4%) nurses worked afternoon and night duty only. Thirty-five (14.8%) nurses worked shifts that were not classed under any of the former categories.

Forty nine (20.8%) respondents were enrolled nurses, while one hundred and fifty three (64.8%) participants were registered nurses at Level 1 (years 1-9, with Level 2 and above representing management positions). Table 4.2 displays the number of registered nurses within each nursing position of Levels 1 and above. Thirty-two respondents (13.5%) held or had held a supervisory position such as a head nurse of a ward. One hundred and seventeen (49.6%) respondents had held their current position for less than 5 years, 59 (25.0%) held their current position for 5 to 10 years, and 60 (25.4%) had held their position for more than 10 years (N=236).

Table 4.2

Number of Nurses by Nursing Position

Number of nurses (%)	Nurse position
12 (5.1)	Registered Nurse Level 1
10 (4.2)	Registered Nurse Level 2
14 (5.9)	Registered Nurse Level 3
19 (8.1)	Registered Nurse Level 4
13 (5.5)	Registered Nurse Level 5
9 (3.8)	Registered Nurse Level 6
10 (4.2)	Registered Nurse Level 7
12 (5.1)	Registered Nurse Level 8
54 (22.9)	Registered Nurse level 9
22 (9.3)	Clinical Nurse (Level 2)
54 (22.9)	Clinical Nurse Consultant (Level 3)
2 (0.8)	Higher ranked position than CNC

For the five functional units/areas considered, 51 (21.5%) nurses worked in internal medical wards, 37 (15.6%) worked in the cancer centre, 58 (24.5%) worked in the cardiovascular wards, 34 (14.3%) worked in orthopaedics and trauma, and 57 (24.1%) worked in critical care (N=235). Of these, one hundred and fifteen (49.1%) had worked at the hospital for less than 5 years, 59 (25.2%) between 5 and 10 years, and 60 (25.6%) for more than 10 years (N=237).

Performance of emotion work at work and at home

Nurses were asked to indicate how often they performed emotion work at work, at home, or at both work and home according to each question of the Emotion Work

Inventory. If a respondent indicated the 'both' category, they were given 1 point for home and 1 point for work so that dummy variables could be created for correlation analysis.

One hundred and eighty seven (78.6%) nurses performed emotion work (companionship) at work, while 195 (81.9%) indicated they performed emotion work (companionship) at home. One hundred and eight five nurses also performed help at work (77.7%), as well as at home, while 168 (70.6%) and 159 (66.8%) nurses performed regulation while at work and home, respectively.

With respect to other types of caring roles that could be demanding or time-consuming, such as being a partner/spouse, a parent, a friend, a volunteer worker, a carer for aged parents, or roles associated with being an extended family member, one hundred and sixty one (68.8%) nurses indicated that they had a partner or spouse; 112 (47.9%) nurses were parents; 148 (63.2%) nurses maintained friendships, 59 (25.2%) did volunteer work; 50 (21.4%) cared for aged parents; and 47 (20.1%) maintained an emotionally demanding role involving extended family members. Regarding the number of roles maintained, five nurses (2%) did not maintain any of the six types of roles, fifty-one (21.8%) maintained one, seventy three (31.2%) maintained 2, fifty (21.4%) maintained 3, thirty-eight (16.2%) participated in 4 roles, eleven (5%) maintained 5 and four (2%) maintained 6 roles (N=234).

Workers compensation claims

From a total of seventy-nine injuries (33.2%) reported during the previous 12 months, fifty-eight (73.4%) nurses reported that they had made compensation claims following (in order of prevalence) back (16.38%), shoulder (2.94%), hand/finger (2.10%), knee/leg/ankle (1.68%), neck (1.26%), wrist (1.26%), broken arm/elbow (1.26%), stress (0.84%) and needle stick (0.42%) injuries. Six (2.52%) other low prevalence injuries and infections were also reported, including chicken pox, unspecified acquired infections, dermatitis to hands, strained hamstring, eye infection and injury resulting from a chemical spill. Thirty- four males (14.28%) comprised the sample, and Fisher's exact test was conducted as an alternative to a Chi Square Independence test in order to determine if gender had an influence on the type of injury. The sample

size available (N=79) was not large enough to be considered suitable for a Chi Square Independence test. A two-sided Fisher's exact test yielding a non significant p-value result of 0.84 confirmed that gender had no greater association with any type of injury reported than expected by chance. Figure 3.1 depicts the number and type of injuries reported by nursing staff over a 12 month period.

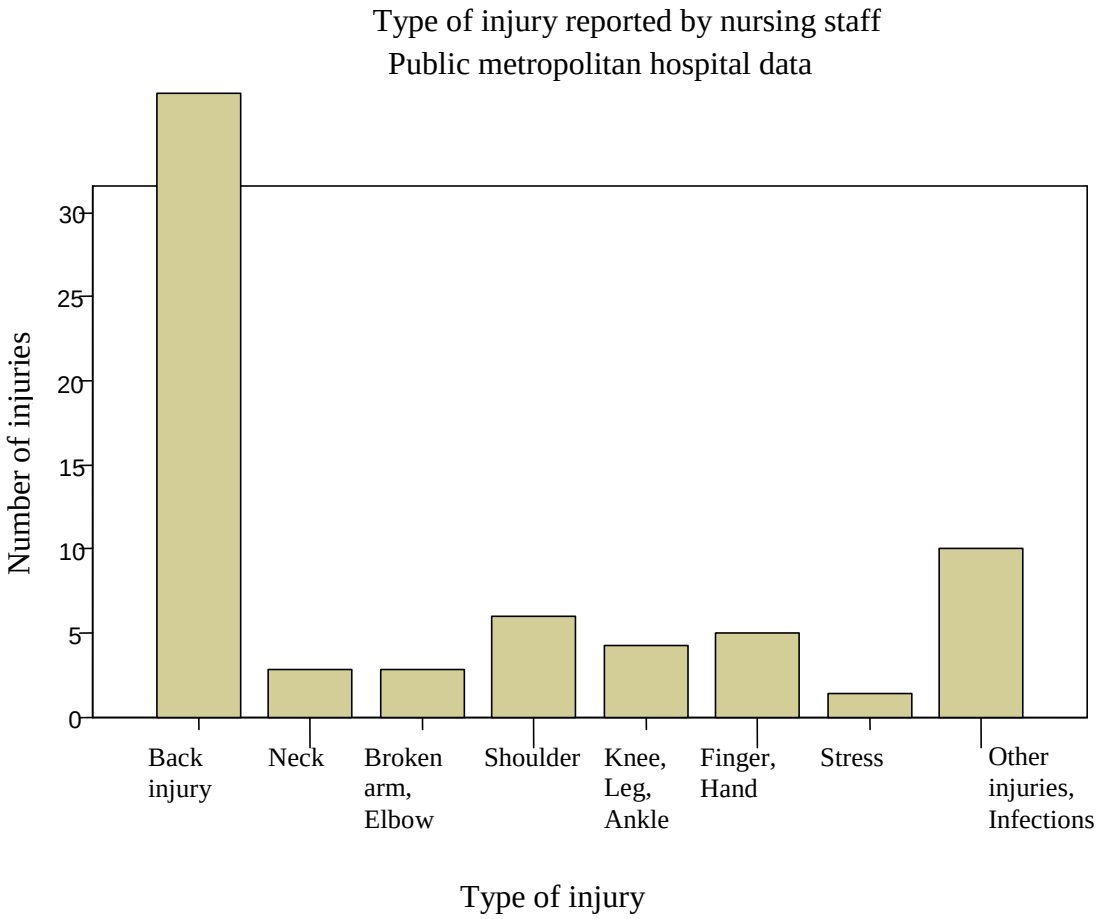

Figure 4.1. Number of workers compensation claim applications made by type of injury (self-reported injury) in public hospital nurses.

Note: Needle stick and wrist injuries appear under the 'other' category, along with 6 other low prevalence injuries and infections. These scores do not reflect workers compensation claim applications that were rejected.

Nurse-patient interaction

Responses provided for length of typical patient-nurse interactions varied. The mean response was 21.02 minutes (SD=9.65), compared to M=11.77, SD=19.53 in Brotheridge and Lee's (2003) study. The most frequent responses provided were 'too variable to specify,' indicated by 44 (19.5%) respondents, '10 minutes,' by 37 (16.4%) nurses, '5 minutes' specified by 33 (14.6%) nurses, '15 minutes' indicated by 18 (7.9%) nurses, 20 minute interactions were denoted by 15 (6.6%) nurses, and 5-10 minute and 30 minute interactions were indicated by a group of 13 (5.7%) and a group of 12 nurses (5.3%), respectively. Five respondents (2.2%) reported interactions of over 60 minutes in duration. Finally, there were 50 (22%) interactions of various durations reported (N=227). The results provided evidence for the contention that nursing work is characteristically relevant to forming, and potentially developing, relationships with patients.

4.1.3 Univariate data analyses

Table 4.3 displays descriptive statistics such as means, standard deviations, range of values, missing data and internal reliabilities of the predictor variables measured (not inclusive of the demographic variables described above), whereas Table 4.4 displays the univariate data for the outcome variables. Appendix 4.1 provides a comparison of the mean scores (standard deviations) observed in the study with the mean scores of previous research.

Table 4.3

Univariate data of Predictor Variables

Variable	Mean M	Standard Deviation SD	Lowest value	Highest value	Missing data	Internal Reliability
Psychosocial variables						
Trait Anxiety	41.12	8.62	21	74	21	0.88
Supervisor Social Support (Availability)	11.21	3.83	5	20	28	0.94
Social Support from colleagues (Availability)	12.69	3.42	3	20	25	0.90
Social Support from Friends/Family (Availability)	17.55	4.45	6	24	23	0.90
Supervisor Social Support (Adequacy)	8.78	4.25	1	15	43	0.93
Social Support from colleagues (Adequacy)	11.33	3.42	1	15	38	0.89
Social Support from Family/Friends (Adequacy)	14.25	4.13	1	18	36	0.82
Work-Family (Negative) Conflict	27.77	5.15	11	40	1	0.87
Family-Work (Negative) Conflict	19.77	6.17	8	40	1	0.82
Work-Family Positive Spillover	37.41	7.28	8	54	1	0.90
Family-Work Positive Spillover	40.06	6.45	18	55	4	0.89
Emotion Work (Companionship)	24.93	4.66	9	35	18	0.80
Emotion Work (Help)	22.27	5.12	8	35	23	0.84
Emotion Work (Regulation)	18.05	6.35	3	35	27	0.91
Emotion Labour (Requirements and Regulation Strategies)	22.03	4.29	7	36	8	0.72
Emotion Labour (Feigned Positive Expression)	14.42	2.80	6	20	8	0.75

Table 4.4

Descriptive Statistics for Outcome Variables

Variable	Mean M	Standard Deviation SD	Lowest value	Highest value	Missing data	Internal Reliability
Outcome variables						
Positive Affect	30.00	7.56	14	50	20	0.87
Negative Affect	17.56	6.43	10	39	20	0.87
Depression	4.41	4.14	0	21	21	0.90
Stress	61.93	16.26	25	106	10	0.93
Burnout (Personal)	20.03	4.13	9	30	7	0.89
Burnout (Work-related)	22.75	3.78	11	33	7	0.71
Burnout (Client-related)	15.08	4.16	6	26	7	0.86
Job satisfaction	72.58	14.90	28	111	6	0.92
Organisational (Affective) commitment	11.89	2.17	2	18	21	0.62
Absenteeism	11.01	16.87	0	168	34	
Compensation Claim			1	2	20	

As can be seen from Tables 4.3 and 4.4, the majority of variables had missing data of less than 11%. The number of low/high extremes (outside 3 standard deviations) was low for all variables, except for social support (supervisors), for which there were 14 ‘high end’ extreme values. Outstanding outliers outside 3 standard deviations of the mean were removed from the analyses.

The Shapiro-Wilk normality test results were significant for the variables social support (supervisor), social support (colleagues), social support (family/friends), work-family conflict, family to work conflict, work to family positive spillover, family to work positive spillover, emotion work (companionship), emotion work (regulation), emotion labour (general strategies), emotion labour (feigned positive expression), emotion labour (negative emotion suppression), negative affect, depression, client/patient burnout, job satisfaction, affective commitment and subjective absenteeism, indicating some deviation from normality. However, inspection of the detrended normal Q-Q plot for each of the variables indicated that the distributions were close enough to be treated as normal distributions. This was due to values that did not extend beyond 1.5 standard deviations above the mean, as well as a general cluster of points in a horizontal band around zero with no particular pattern. In effect, it could be visibly observed from the plots of normality and histograms that the distributions were within the required standard deviation range suggestive of approaching normality. Data was also examined for skew, although the majority of variables were not highly skewed in a particular direction, and were left unmodified. It was decided that the data would not be transformed to meet normality assumption requirements. In relation to the analyses of variance tests (section 4.1.15), the removal of outliers was attributed to differences in sample sizes between variables. As can be seen from the Tables 4.3 and 4.4, all alpha internal consistency values were high, apart from work burnout and affective commitment, for which the reliability values were moderate.

4.1.4 Exploratory factor analyses

In order to confirm the factor structure of each of the following measures, principal component analysis with a varimax rotation in SPSS was selected to extract factors. Principal axis factoring with an oblique rotation was also performed for comparison. An oblimin rotation produced similar factor structures. All factor loadings above .30 were considered, as well as cross loadings for items with factor loadings on more than one component of .30 or greater value. The sample size requirement of 150+ was achieved, followed by factorability of the correlation matrices for each measure. Many of the correlations between variables were .3 or above and the Bartlett's test of

sphericity was statistically significant for all scales. The Kaiser-Meyer-Olkin value was above .6 for all scales (usually .8 to.9), also indicating factorability of the correlation matrix. Missing data and outliers were deleted listwise.

Work to family positive spillover

Two factors were extracted as indicated by a total variance of 50.89%, with an Eigen value of 5.60 for Factor 1 and 15.78% with an Eigen Value of 1.74 for Factor 2. Factor 1 represented items 20-21 of the work to family positive spillover subscale (See Appendix 3.5), and was associated with Hammer, Hanson and Colton's (2004) groupings of the items under 'skills and values' and 'behaviour', except that one factor encompassing both groups in lieu of two distinct factors emerged. Factor 2 appeared to represent items 17-20 of the work to family positive spillover scale, under the 'affect' label. Total variance explained after the extraction of two factors was 38.87% with an Eigen value of 4.28 for Factor 1 and 27.79% with an Eigen value of 3.06 for Factor 2. However, when 3 factors were selected to be extracted, in line with Hammer, Hanson and Colton's study, items 17-20 loaded on a single factor, and the Eigen value for the third factor did not reach 1. All loadings were above .67.

Family to work positive spillover

Similarly, two factors were extracted for the family to work positive spillover subscale, and produced a similar structure of item loadings on the factors (items were grouped under 'skills and values' and 'behaviour' or under 'affect'). The total variance explained by Factor 1 was 43.91% with an Eigen value of 5.38, and 21.60% with an Eigen value of 2.38 for Factor 2. On rotation, total variance was 40.83% with an Eigen value of 4.49 for Factor 1 and 29.68% with an Eigen value of 3.27 for Factor 2. All loadings were above .66.

Emotion labour

Two factors were extracted from Brotheridge and Lee's (2003) Emotional labour scale. Items depicting variety and intensity comprised the first factor, of which total variance explained was 36% with an Eigen value of 2.88. The three items that held high factor loadings on a second factor were items 4, 6 and 7 of the scale, representing surface and deep acting items (Appendix 3.5). The exclusion of item 8 in these items,

representing ‘deep acting’ of the second factor, may have been attributed to the researcher’s re-wording of item 8. Total variance explained for the second factor was 20% with an Eigen value of 1.60. The smallest factor loading was .58. After rotation, total variance explained was 37.76% with an Eigen value of 2.62 for Factor 1 and 23.24% with an Eigen value of 1.86 for Factor 2.

Emotion labour (feigned positive emotion expression and negative emotion suppression)

Items from the Best, Downey and Jones’ (1997) scale were rotated to produce two factors. The first factor [total variance explained = 50.19% (Eigen value = 3.51)] comprised the suppression of negative emotion items from the scale, and the second factor [total variance explained = 18.58% (Eigen value = 1.3)] represented the expression of feigned positive emotion labour items (Appendix 3.5). Cross loadings on Factors 1 (.35) and 2 (.74) for item 1 (feigned positive emotion labour) were observed. The smallest factor loading was .74. After rotation, total variance explained was 39.62% (Eigen value = 2.77) for Factor 1 and 29.14% (Eigen value = 2.04) for Factor 2.

Emotion work (companionship), (help), and (regulation)

One factor emerged from analysis of the companionship and regulation subscales [total variance explained at extraction = companionship: 47% (Eigen value = 3.23); Regulation: 64.47% (Eigen value = 4.51)], in line with Strazdins’ (2000) research.
Two factors emerged from the help subscale with eigen values greater than one with principal components analysis, whereas only one factor was extracted with an eigen value greater than one when a principal axis factoring method was used. The screeplot revealed only one factor, prompting a repeat of the analysis with one factor for both a varimax and oblimin rotation. In addition, there were cross loadings for items 8, 9, 12 and 13, although factor loadings were higher for Factor 1. Item 12, for which a slightly higher factor loading was evident for Factor 2, was the only item that appeared to load heavily on Factor 2 (Appendix 3.5). When principal components analysis with a varimax rotation was selected, total variance explained for the help subscale was 51.47% (Eigen value = 3.6), and after rotation 38.81% (Eigen value =

2.72). Principal axis factoring with oblimin rotation, as selected in Strazdins' (2000) study, revealed similar structural results for all three emotion work components.

Item analysis

In addition to a factor analysis performed on each of the scales, individual items were explored. Inspection of item-item correlations indicated that for all constructs, items representing specific elements of the measures had moderate to strong correlations with items representing the same global construct. Items were also strongly correlated to the total scale score, although not so strongly correlated that they were not be considered individual items in their own right (no $r > .85$). Internal consistency was therefore indicated, as all items were inter-related as well as strongly associated with the total scores of the measure to which they belonged.

4.1.5 Bivariate analyses (Exploratory analysis and Hypotheses 1 and 2)

The exploratory analysis was focused on the predictive power of emotion labour and emotion work. It was conceptualised that emotion work and emotion labour are separate concepts, such that the predictive power of emotion work would differ from that of emotion labour. It was predicted that emotion work, in addition to emotion labour, would make an unique contribution to health outcomes when other types of individual difference and work environment stressors and resources were controlled (Hypothesis 1). It was also proposed that emotion labour would be more likely to contribute to the development of negative outcomes, as well as a reduction in positive outcomes (Hypothesis 2).

The inter-correlations between psychosocial variables indicated medium to strong correlations. However, correlations between subscale scores were distinct enough to be scales in their own right, in particular, the inter-correlations between social support scales, work-family and family-work conflict and positive spillover scales, and the emotion labour and emotion work scales (Moss, 1986, Dollard, 1996). As stated in the previous chapter, the data representing emotion work performed at work and at home were transformed into dummy variables. Table 4.5 depicts the Pearson inter-correlations between variables measured in the study (using bivariate correlation analysis).

4.1.6 Correlations of individual difference variables and environmental factors (Exploratory analysis)

As shown in Table 4.5, females appeared to perform more emotion work in the forms of companionship and help, perform more emotion labour in the form of feigned positive expression, hold more positive affect, job satisfaction, and low client-related burnout, than males. However, it should be noted that the distribution of males to females was heavily in favour of females, as would be expected in a nursing sample. Older nurses were more likely to work part time and have lower trait anxiety, more positive affect, lower depression, and have lower levels of personal and work-related burnout than their younger counterparts (Table 4.5). They were also less likely to have made a workers compensation claim. Part time workers were more likely to perform emotion work (regulation) at home, presumably due to having had more opportunity to perform emotion work at home than full time workers (Table 4.5).

Trait anxiety was associated weakly to moderately with low social support from colleagues (negative direction) and family/friends (positive direction), more work to family and family to work conflict (positive direction), less family to work positive spillover (negative direction), more emotion labour (general and feigned positive emotion expression and negative emotion suppression) (positive direction), low positive affect (positive direction), increased negative affect (positive direction), increases in depression (positive direction), stress (positive direction), burnout (personal, work-related and patient-related) (positive direction), low job satisfaction (negative direction) and affective commitment (negative direction).

Table 4.5
Bivariate Correlations of Measured Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Individual difference variables														
1. Gender	1													
2. Age	-.08	1												
3. Working status	.18**	.14*	1											
4. Trait Anxiety	-.08	-.22**	.09	1										
Psychosocial variables														
5. Social Support from supervisors	.11	-.12	-.10	-.13	1									
6. Social support from colleagues	.03	-.05	-.09	-.20**	.54**	1								
7. Social support from friends/family	-.03	-.13	.00	.22**	.22**	.39**	1							
8. Work-Family Conflict	-.03	.02	-.06	.32**	-.31**	-.28**	-.16*	1						
9. Family-Work Conflict	-.02	.05	.08	.23**	-.26**	.13	.01	.39**	1					
10.Work-Family Positive Spillover	.18**	-.05	.01	.02	.26**	.01	-.10	-.08	.08	1				
11. Family-Work Positive Spillover	.20**	.09	.10	-.14*	.25**	.13	.01	-.13*	.13	.53**	1			
12. Emotion Work (Companionship)	.18**	-.10	.03	.00	.07	.14*	.28**	-.16*	-.20**	.04	.15*	1		
13. Emotion Work (Companionship-Home)	-.08	-.10	.04	.02	.00	.06	.10	-.03	-.04	.07	.08	.25**	1	
14. Emotion Work (Companionship-Work)	.00	.03	-.03	.00	.04	.07	.05	.04	.03	.04	.03	.07	.56**	1
15. Emotion Work (Help)	.19**	.02	-.03	.00	-.05	-.01	.16*	.15*	.00	.08	.09	.51**	-.05	.02
16. Emotion Work (Help-Home)	-.08	-.07	.09	.02	.08	.08	.10	-.02	.04	.04	.11	.25**	.80**	.46**
17. Emotion Work (Help-Work)	-.00	-.02	.06	-.03	.05	.12	.03	.07	.05	-.00	.01	.09	.64**	.72**
18. Emotion Work (Regulation)	.03	.05	.05	.11	-.02	-.03	.06	.12	.20**	.15*	21**	.22**	-.01	-.08
19. Emotion Work (Regulation-Home)	-.09	.09	.19**	-.02	.05	.02	.01	-.03	.11	.08	.13*	.21**	.57**	.31**
20. Emotion Work (Regulation-Work)	-.06	-.02	-.05	-.03	.01	.12	.09	.06	.06	.00	-.02	.05	.63**	.61**
21. Emotion Labour (Requirements & Regulation Strategies)	.10	.01	.05	.16*	-.01	.05	.01	.25**	.09	.06	.16*	.08	.13*	.14*
22. Emotion Labour (Feigned Positive Emotion Expression)	.14*	-.02	.03	.17*	.01	.07	.04	.20**	.10	.22**	.28**	.09	.09	.07
23. Emotion Labour (Negative Emotion Suppression)	.08	-.02	.00	.16*	-.17*	-.04	-.03	.28**	.19**	.19**	.05	-.11	-.04	-.05
Dependent variables														
24. Positive Affect	.14*	.28**	-.12	-.41**	.02	.20**	.09	-.23**	-.10	.00	.16*	.20**	.10	.04
25. Negative Affect	.05	-.12	.09	.52**	-.18*	-.22**	-.12	.28**	.23**	.05	-.08	-.09	.01	-.04
26. Depression	-.06	-.15*	-.08	.57**	-.15*	-.14*	-.21**	.31**	.22**	.06	-.16*	-.24**	-.04	-.01
27. Stress	.07	.05	.03	.23**	-.30**	-.11	-.06	.53**	.31**	.04	-.06	-.12	-.00	.03
28. Burnout (Personal)	.03	-.14*	-.02	.50**	-.27**	-.21**	-.19**	.53**	.23**	.02	-.14*	-.17*	-.05	-.02
29. Burnout (Work-related)	.00	-.16*	.04	.43**	-.31**	-.21**	-.12	.62**	.25**	-.03	-.11	-.19**	-.02	-.04
30. Burnout (Patient-related)	-.14*	-.03	.01	.27**	-.17*	.14*	-.07	.33**	.24**	-.08	-.13	-.17*	.12	.03
31. Job Satisfaction	.16*	-.01	.04	-.30**	.51**	.32**	.14*	-.52**	-.28**	.16*	.30**	.24**	.04	.12
32. Affective Commitment	.10	.12	-.08	-.18**	.36**	.24**	.05	-.14*	-.01	.19**	.24**	.15*	.15*	.09
33. Self-reported Absenteeism	-.00	.11	.00	-.03	-.13	.04	.04	.03	.04	.00	.04	.10	-.11	-.09
34. Self-reported Injury/Workers Compensation Claim	-.02	-.17*	-.13	.04	.05	.12	.05	.07	.10	-.01	-.04	.02	-.05	-.05

Table 4.5
Bivariate Correlations of Measured Variables

Measure	15	16	17	18	19	20	21	21	23	24	25	26	27	28
Psychosocial variables														
15. Emotion Work (Help)	1													
16. Emotion Work (Help-Home)	.13	1												
17. Emotion Work (Help-Work)	-.04	.62**	1											
18. Emotion Work (Regulation)	.59**	.05	-.05	1										
19. Emotion Work (Regulation – Home)	.14*	.74**	.47**	.21**	1									
20. Emotion Work (Regulation – Work)	-.06	.63**	.81**	-.06	.41**	1								
21. Emotion Labour (Requirements and Regulation Strategies)	.21**	.08	.20**	.19**	.04	.13*	1							
22. Emotion Labour (Feigned Positive Emotion Expression)	.21**	.10	.08	.23**	.10	.12	.41**	1						
23. Emotion Labour (Negative Emotion Suppression)	.16*	-.07	-.03	.23**	-.06	.03	.35**	.58**	1					
Dependent variables														
24. Positive Affect	.12	.10	.05	.07	.04	.02	-.12	.05	-.08	1				
25. Negative Affect	.19**	.05	-.10	.22**	.04	-.04	.19**	.23**	.27**	.12	1			
26. Depression	-.08	-.09	-.08	.02	-.09	-.02	.12	.16*	.26**	-.19**	.59**	1		
27. Stress/Strain	.16*	.03	.13*	.19**	.01	.10	.36**	.27**	.42**	-.16*	.29**	.32**	1	
28. Burnout (Personal)	.15*	-.05	-.01	.18**	-.09	-.02	.31**	.21**	.35**	-.30**	.50**	.54**	.51**	1
29. Burnout (Work-related)	.14*	-.04	.04	.21**	-.02	.05	.35**	.26**	.35**	-.29**	.39**	.40**	.58**	.77**
30. Burnout (Patient-related)	-.06	.05	.09	.02	.09	.06	.23**	.05	.19**	-.24**	.21**	.31**	.34**	.42**
31. Job Satisfaction	-.04	.08	.04	-.16*	.04	-.01	-.10	-.14*	-.37**	.24**	-.27**	-.36**	-.40**	-.49**
32. Affective Commitment	.02	.20**	.13	-.04	.14*	.08	.05	.00	-.16*	.23**	-.07	.16*	-.21**	-.31**
33. Self-reported Absenteeism	.12	-.12	-.17*	.03	-.06	-.19**	.15*	.05	.06	-.03	.04	.05	.20**	.20**
34. Self-reported Injury/Workers Compensation Claim	.01	-.09	-.04	.12	-.04	.05	-.01	-.03	.08	.03	.07	.06	-.02	.04

Table 4.5
Bivariate Correlations of Measured Variables

Measure	29	30	31	32	33	34
Dependent variables						
29. Burnout (Work-related)	1					
30. Burnout (Patient-related)	.46**	1				
31. Job Satisfaction	-.57**	-.39**	1			
32. Affective Commitment	-.30**	.18**	.40**	1		
33. Self-reported Absenteeism	.11	.11	-.18*	-.02	1	
34. Self-reported Injury/Workers Compensation Claim	-.02	-.06	-.10	-.06	.14*	1

Note: *= $p<.05$, ** = $p<.01$ (two-tailed). Gender: 1 = Male, 2 = Female. Work status: 1 = Full time, 2 = Part-time. Compensation claim: 1 = Yes, 0 = No

Other correlations are available from the author

4.1.7 Correlation analyses of emotion work performance and roles performed

Correlation analyses involving emotion work performance, multiple roles and age were conducted in order to get a sense of the types of emotion work most commonly provided, as well as the situations in which emotion work would most likely be provided. The variable Type of Role contained 6 categories and these were converted into k-1 dummy variables labelled partner/spouse, friend, parent, volunteer worker, caring for aged parents and extended family member (Table 4.6).

Table 4.6

Correlations between Emotion Work (EW) and other Caring Roles (Yes/No)

Role	Spouse	Parent	Friend	Extended family	Volunteer	Carer
EW (Companionship)	.12	-.06	.13	-.01	.09	.02
EW (Help)	.05	-.01	.07	.05	.05	.11
EW (Regulation)	.05	.15*	.10	.11	.03	.13
EW Companionship/Home	.09	.08	.19**	.03	.14*	.08
EW Help/Home	.12	19**	.14*	.04	.16*	.11
EW Regulation/Home	.06	.30**	.14*	-.02	.15*	.11
EW Companionship/Work	.03	.09	.09	- .07	.03	.07
EW Help/Work	.01	.12	.11	-.03	.03	.05
EW Regulation/Work	.01	.01	.11	.03	.07	.04

Note: C = Companionship, H = Home and W = Work. Roles maintained: Yes = 1, No = 0, maintaining the role is scored high. *p < .05, **p < .01.

As can be seen in the table, the correlations were in general very weak. Very weak to weal correlations between emotion work performed at home and maintaining roles as a parent, volunteer or friend were found, as well as a significant association between the performance of regulation at home and providing care as a parent, friend or volunteer. In addition, very weak associations were found between regulation

performance and help performance with performing more than one role (regulation at home: r = .19, p < .01) and (Help at home: r = .14, p < .05). No significant correlations were found between any of the roles performed and burnout. No association was found between the emotion work components and age (Companionship: r = -.10, p > .05; Help: r = .02, p > .05; Regulation: r = .05, p > .05).

4.1.8 Correlations between environmental factors (Exploratory analysis)

Supervisor social support was associated weakly-moderately with the following variables work to family and family to work conflict (negative direction) work to family and family to work positive spillover (positive direction), and negative emotion suppression (negative direction). Social support (colleagues) and social support (family and friends) both correlated weakly to moderately with work to family conflict (negative direction), and emotion work (companionship) (positive direction). Social support (family and friends) also related weakly with emotion work (help) (positive direction). Work to family conflict correlated weakly-moderately with emotion work (companionship) (negative direction) and emotion work (help) (positive direction) and all forms of emotion labour in a positive direction (requirements and regulation strategies, feigned positive emotion expression, and negative emotion expression), while family to work conflict correlated weakly to moderately with emotion work (companionship) (negative direction), emotion work (regulation) (positive direction), and negative emotion suppression (positive direction). Work to family positive spillover was weakly to moderately related to emotion work (regulation) (positive direction), and emotion labour (feigned positive emotion expression and negative emotion suppression) (positive direction). Lastly, family to work positive spillover correlated weakly to moderately with emotion work (companionship, regulation, and regulation performed at home) (positive direction), and emotion labour (requirements and regulation strategies and feigned positive emotion expression) (positive direction).

Emotion work (companionship) did not correlate with any of the emotion labour variables. However, emotion work (help) and emotion work (regulation) correlated weakly to moderately with all three emotion labour scales. However, the

association between emotion work (help) and negative emotion suppression was weaker than the association between emotion work (regulation) performance and negative emotion suppression, suggesting that performance of emotion work in the form of help involves suppression of fewer negative emotions than regulation.

4.1.9 Correlations between work environmental factors and outcome variables (Exploratory analysis)

Positive affect

Psychosocial variables associated with positive affect were social support (colleagues) (positive association), work to family conflict (negative direction), family to work positive spillover, and emotion work (companionship) (positive associations) (Table 4.5).

Negative affect

Social support (supervisor and colleagues) (negative direction), work to family and family to work conflict, emotion work (help and regulation) and all forms of emotion labour (requirements and regulation strategies, feigned positive expression and negative emotion suppression) were significantly related to negative affect (Table 4.5).

Depression

All forms of social support (negative direction), work to family and family to work conflict, emotion work (companionship) (negative direction), and emotion labour (feigned positive emotion expression and suppression of negative emotion) were associated with depression (Table 4.5).

Stress

Supervisor social support correlated moderately and negatively with nursing stress, and work to family and family to work conflict, emotion work (help), emotion work (help-work), regulation, and all forms of emotion labour correlated moderately and positively with stress (Table 4.5).

Personal burnout

All forms of social support (negative direction), work to family and family to work conflict, family to work positive spillover, performance of emotion work (companionship), performance of emotion work (help), performance of emotion work (help at work), performance of emotion work (regulation), and all forms of emotion labour were associated with personal burnout (Table 4.5).

Work-related burnout

Supervisor and colleague social support (negative direction), work to family and family to work conflict, performance of emotion work (companionship) (negative direction), performance of emotion work (help), performance of regulation, and all forms of emotion labour were positively related to work-related burnout (Table 4.5).

Patient-related burnout

Patient-related burnout associated moderately and negatively with supervisor and colleague support, positively with work to family and family to work conflict, negatively with emotion work performance (companionship), and positively with emotion labour performance (requirements and regulation strategies and negative emotion suppression) (Table 4.5).

Job satisfaction

Job satisfaction held moderate and positive correlations with all forms of social support, and work to family and family to work positive spillover and emotion work (companionship), and negative correlations with work to family and family to work conflict, emotion work (regulation), and all forms of emotion labour (Table 4.5).

Affective commitment

Social support from supervisors and colleagues, work to family and family to work positive spillover, performance of emotion work (companionship, companionship performed at home, and performance of help at home) were weakly to moderately and

positively associated with affective commitment, whereas work to family conflict, emotion work (regulation at work), and suppression of negative emotion were weakly to moderately and negatively correlated with affective commitment (Table 4.5).

Self-reported absenteeism

Self-reported absenteeism correlated moderately with performance of emotion work (help at work: negative direction), regulation at work (negative direction), as well as positively with emotion labour performance (requirements and regulation strategies). Self-reported absenteeism was significantly and positively associated with stress and burnout, and negatively correlated with job satisfaction (Table 4.5).

Self-reported injury and Workers compensation claims

With regard to the outcome self-reported injury and workers compensation claims, a weak and positive relationship with absenteeism was the only significant association observed, apart from an association with age (Table 4.5).

As shown in Table 4.5 there were a large number of moderate to large inter-correlations between dependent measures, although these correlations were not large enough for concern with regard to independence of measures. Consequently, in the exploratory analysis, there was support for the claim that: *Emotion Labour and emotion Work, conceptualised as different constructs, will differ in their predictive power with regard to individual health and organisational outcomes*, given that the emotion labour and emotion work variables were characteristically related to different constructs. Further, factor analyses (above), and interaction effects (see section 4.1.12) provided additional evidence in favour of the constructs as unique and distinct, and as a result, contributing to different health and organisational consequences. A description of the associations among the predictors and outcomes in the study, and a comparison of the findings with previous research are shown in Appendix 4.2.

4.1.10 Hierarchical multiple regressions (Hypotheses 1, 2 and 3)

Assumptions about sample size (to ensure generalisability across repeated study samples), multicollinearity and singularity, outliers, normality, linearity, homoscedasticity and independence of residuals were considered. None of the independent variables correlated with each other > .9, and both total and subscale scores were not entered into regressions at the same time. Outliers with standardised and residual values above 3.3 (or less than –3.3) were deleted listwise by the SPSS 12.0 program. By observing residual scatterplots, it was evident that residuals were generally normally distributed about predicted criterion scores, a trend of linearity between residuals and dependent variable scores was maintained, and the variance of residual scores about criterion scores were the same for each predicted score.

Although the correlations between some predictor variables and outcomes were not significant, all predictor variables were entered into the regression in three steps, according to their nature and what has been recommended by previous research. Demographic variables such as gender, age and working status were entered in the first step, followed by trait anxiety entered on the second step. Potential intervening variables, such as work to family and family to work conflict, positive spillover, and social support from supervisors, colleagues and family and friends, were then entered on the third step, followed by the emotion labour and the emotion work variables on the final step. Unstandardised B coefficients, beta coefficients, R squared and R squared change values and t values for each step of the regression are displayed in Tables 4.8 and 4.9 for all regression models. The R values were significantly different from zero for all third block and overall hierarchical multiple regression models, with the exception of the hierarchical multiple regression model for the outcome Self-reported Absenteeism. A summary of the planned hierarchical regression analyses for testing Hypotheses 1, 2 and 3 is shown in Table 4.7.

Table 4.7

Summary of planned Hierarchical Multiple Regression Analyses

Step	Variable Block	Specific Variables
1	Demographics	• Gender • Age • Working Status
2	Trait Anxiety	• Trait Anxiety
3	Work environment variables	• Work-Family Conflict • Family-Work Conflict • Work-Family Spillover • Family-Work Spillover • Social Support (Supervisor) • Social Support (Colleagues) • Social Support (Family/Friends)
4	Emotion Labour and Emotion Work	• Emotion Labour (Requirements and Regulation Strategies) • Emotion Labour (Feigned Positive Emotion Expression) • Emotion Labour (Negative Emotion Suppression) • Emotion Work (Companionship) • Emotion Work (Help) • Emotion Work (Regulation)

In addition to the descriptions below for each outcome variable, the contribution to Adjusted R^2 made by each variable block in hierarchical regression undertaken for the 9 outcome variables studied (Positive affect - Self-reported Absenteeism) and the significant predictors (and beta-values) of the studied outcome variables within each variable block in hierarchical multiple regression are provided in Tables 3.8 and 3.9. The contributions of R^2 and R^2 change made by each variable block in the hierarchical multiple regressions undertaken for the 9 outcome variables, as well as the B, Beta and t-values for each predictor, are shown in Appendix 4.3.

Table 4.8

Contribution to Adjusted R^2 made by each variable block in Hierarchical Multiple Regression undertaken for the 9 Outcome Variables studied (Positive affect – Self-reported Absenteeism)

	Step 1 Demographics	Step 2 Trait Anxiety	Step 3 Work environment variables	Step 4 Emotion Labour and Emotion Work
Positive Affect	.08	.20	.24	.27
Negative Affect	.01	.24	.25	.36
Depression	.03	.26	.29	.31
Stress	-.01	.07	.33	.42
Personal Burnout	.02	.28	.42	.44
Work-related Burnout	.01	.22	.48	.51
Patient-related Burnout	.00	.09	.14	.18
Job Satisfaction	.00	.13	.47	.51
Affective Commitment	.01	.01	.12	.11
Self-reported Absenteeism	.01	.01	.01	.01

Table 4.9

Significant predictors (and beta-values) of the studied Outcome Variables within each variable block in Hierarchical Multiple Regression

	Step 1 Demographics	Step 2 Trait Anxiety	Step 3 Work environment variables	Step 4 Emotion Labour and Emotion Work
Positive Affect	Age (.30)	Trait Anxiety (-.36)	Age (.25)	Age (.24)
			Trait Anxiety (-.27)	Trait Anxiety (-.30)
			Work-Family Conflict (-.22)	Work-Family Conflict (-.26)
				Emotion Labour (R & R S) (-.15)
Negative Affect	n.s.	Gender (.14)	Gender (.15)	Trait Anxiety (.36)
		Trait Anxiety (.50)	Trait Anxiety (.43)	Emotion Work (Companionship) (-.17)
				Emotion Work (Help) (.22)
Depression	Age (.-16)	Working status (-.20)	Working status (-.17)	Working status (-.17)
		Trait Anxiety (.52)	Trait Anxiety (.43)	Trait Anxiety (.43)
				Emotion Labour (NES) (.17)
Stress/Strain	n.s.	Trait Anxiety (.29)	Work-Family conflict (.45)	Work-Family conflict (.34)
			Family-Work conflict (.17)	Family-Work conflict (.15)
			Social Support (Supervisor) (-.19)	Social Support (Supervisor) (-.18)
			Social Support (Colleagues) (.20)	Social Support (Colleagues) (.17)
				Emotion Labour (R & R S) (.18)
				Emotion Labour (NES) (.18)
Burnout (Personal)	n.s.	Gender (.15)	Working status (-.12)	Trait anxiety (.32)
		Working status	Anxiety (.35)	Work-Family

		(-.16) Trait Anxiety (.53)	 Work-Family Conflict (.37)	Conflict (.05) Emotion Labour (NES) (.14)
Burnout (Work-related)	Age (-.16)	Trait anxiety (.47)	Trait anxiety (.23) Work-Family Conflict (.51) Social Support (Supervisor) (-.14)	Age (-.20) Trait anxiety (.19) Work-Family Conflict (.47) Social Support (Supervisor) (-.14) Emotion Labour (R & R S) (.12)
Burnout (Patient-related)	n.s.	Trait Anxiety (.31)	Trait Anxiety (.18) Work-Family Conflict (.20)	Trait anxiety (.19) Emotion Labour (R & R S) (.25)
Job Satisfaction	n.s.	Trait anxiety (-.37)	Work-Family Conflict (-.35) Family-Work Conflict (-.13) Family-Work Positive Spillover (.23) Social Support (Supervisor) (.31)	Work-Family Conflict (-.32) Family-Work Positive Spillover (.19) Social Support (Supervisor) (.30) Emotion Labour (NE S) (-.15)
Affective Commitment	n.s.	n.s.	Working Status (.17) Family-Work Conflict (.18 Social Support (Supervisor) (.22)	Working Status (.17) Family-Work Conflict (-.18) Social Support (Supervisor) (.22)
Self-reported Absenteeism	n.s.	n.s.	n.s.	n.s.

Note: (NES) = Negative Emotion Suppression, (R & R S) = Requirements and Regulation Strategies.

Positive affect

For the hierarchical regression with positive affect as the outcome, the overall model explained 34% (27% adjusted) of the variance. The demographic variables contributed 9.7% of the variance, trait anxiety made an unique contribution of 12.4%, and the third and final blocks further contributed 6% and 5.9% of the variance, respectively. Shared variability, was calculated using the rationale of Tabachnick and Fidell (2001). Given that the square of the semi-partial correlations indicated for these predictors provides the r square, if a predictor is omitted from the equation the square and sum of the semi-partial correlations [i.e., .044 + .065 + .038 + .017= .164] is the amount of r square attributed to unique scores. Subtracting the unique variance from the R^2 value produced the shared variability variance value [.340 - .164 = .176], or 17.6%. Trait anxiety, work-family conflict, age and emotion labour (requirements and regulation strategies) (in ascending to descending order) made significant contributions to the equation, as indicated by significant beta weight values (Table 4.9). Classical suppression was observed when an original non significant relationship coefficient between positive affect and emotion labour (requirements and regulation strategies) [r=-.10, p = .09] approached significance once other predictor variables were controlled in the multiple regression equation [beta = -.15, p < .05].

Negative affect

For the hierarchical regression with negative affect as the outcome, the overall model explained 36% (30% adjusted) of the variance. Trait anxiety made an unique contribution of 23%, while the final block further contributed 6.9% of the variance. Trait anxiety, emotion work (help) and emotion work (companionship) made significant contributions to the equation, as indicated by significant beta weight values (Table 4.9). R square attributed to unique scores was 12.9% [.093 + .016 + .020]. Together these variables contributed to 23.3% of shared variability [.362 - .129 = .233]. Classical suppression was observed once again when the non-significant bivariate relationship between emotion work (companionship) and negative affect [r = -.07, p = .16] became significant [beta = -.17, p < .05].

Depression

Predictors regressed onto depression produced an overall model that explained 39% (33% adjusted) of the variance, indicating that 39% (33% adj.) of the variability in patient-related burnout could be predicted by the predictor variables. The first block contributed 5% of the variance, trait anxiety made an unique contribution of 26%, the third block contributed 4%, while the final block further contributed an additional 4% of the variance. Significant beta coefficient weights in the final block revealed working status, trait anxiety and emotion labour (suppressing negative emotions) to be the three predictors making significant contributions to the equation (Table 4.9).
R square attributed to unique scores was 16.8% [.026 +.127 + .015 = .168]. Together these variables contributed to 22% of shared variability [.390 - .168 = .220].

Stress

For the outcome stress, the overall model explained 47% (42% adjusted) of the variance. Trait anxiety made an unique contribution of 7.9%, the third block contributed 28.5% and the final block further contributed 9.4% of the variance. Work-family conflict, emotion labour (requirements and regulation strategies), supervisor social support, emotion labour (suppressing negative emotions), social support from colleagues, and family to work conflict made significant contributions to the equation, as indicated by significant beta weight values (Table 4.9). R square attributed to unique scores was 16.7% [.070 +.024 + .021 + .018 + .019 + .015 = .167]. Together these variables contributed to 30.3% of shared variability [.47- .167 = .303]. Classical suppression was also identified when a non significant association between social support from colleagues and stress [r =-.08, p =.15] became significant once other variables were controlled [beta = .17, p < .05]. The sign also reversed from negative to positive.

Personal burnout

When personal burnout was the outcome the overall model explained 49% (44% adjusted) of the variance. Trait anxiety made an unique contribution of 26.5%, the third block contributed 28.5% and the final block further contributed 15.2% of the variance. Work-family conflict, trait anxiety and emotion labour (suppressing negative emotions), produced significant contributions to the equation, as indicated by significant beta weight values (Table 4.9). The R square attributed to unique scores

was 14.6% [.062 +.073 + .011 = .146]. Together these variables contributed to 34.2% of shared variability [.489 - .146 = .342].

Work-related burnout

Predictors regressed onto work-related burnout produced an overall model that explained 56% (51% adjusted) of the variance. Trait anxiety made an unique contribution of 20.4%, the third block contributed 28%, while the final block further contributed 4.2% of the variance. Significant beta values indicated that work-family conflict, age, trait anxiety, supervisor social support, and emotion labour (requirements and regulation strategies) produced significant contributions to the equation (Table 4.9). The R square attributed to unique scores was 20.9% [.130 +.024 + .031. + .013 + .011 = .209]. Together these variables contributed to 35% of shared variability [.560 - .209 = .350].

Patient-related burnout

Predictors regressed onto patient-related burnout produced an overall model that explained 25% (18% adjusted) of the variance, indicating that 25% (18% adj.) of the variability in patient burnout could be predicted by the predictor variables. Trait anxiety made an unique contribution of 8.9%, the third block contributed 8%, while the final block further contributed 6.5% of the variance. Significant beta coefficient weights revealed emotion labour (requirements and regulation strategies) and trait anxiety as the two predictors making significant contributions to the equation (Table 4.9). The R square attributed to unique scores was 7.1% [.047 +.024 = .071]. Together these variables contributed to 17.9% of shared variability [.25 - .071 = .179].

Job satisfaction

Predictors regressed onto job satisfaction produced an overall model that explained 56% (51% adjusted) of the variance in job satisfaction. Trait anxiety made an unique contribution of 12.6%, the third block contributed 35.3%, and the final block further contributed 5.6% of the variance. Significant beta values indicated that work-family conflict, supervisor social support, family to work positive spillover, emotion labour (negative emotion suppression), and emotion work (regulation) provided significant

contributions to the equation (Table 4.9). The R square attributed to unique scores was 16.3% [.062 +.058 + .019 + .013 + .011 = .163]. Together these variables contributed to 39.7% of shared variability [.560 - .163 = .397].

Affective commitment

Predictors regressed onto affective commitment produced an overall model that explained 19% (11% adjusted) of the variance. The third block made an unique contribution of 14.1%, while the first, second and final blocks did not produce significant F change values in order to make a contribution to the variance explained. Significant F values were observed for the models comprising the third and final blocks of variables only, indicating that the increase in variables may have led to a reduction in error variance or 'noise' in the data. For the overall model, significant beta values indicated that social support from supervisors, family to work conflict, and working status (higher values indicating part-time) produced significant contributions to the equation (Table 4.9). The R square attributed to unique scores was 7.9% [.032 +.021 + .026 = .079]. Together these variables contributed to 11.1% of shared variability [.19 - .079 = .111].

Self-reported absenteeism

With regard to self-reported absenteeism, none of the predictors made a significant contribution, as shown in Table 4.9.

Table 4.10 displays the contributions (and directions of the effects) of emotion labour and emotion work to the studied individual health and organisational outcomes.

Table 4.10

Significant contributions (and directions) of Emotion Labour and Emotion Work to the studied Individual and Organisational Outcomes

Variable	Emotion Labour (Direction)	Emotion Work (Direction)
Positive Affect	-	n.s.
Negative Affect	n.s.	- & +
Depression	+	n.s.
Stress	+	-
Personal Burnout	+	n.s.
Work-related Burnout	+	n.s.
Patient-related Burnout	+	n.s.
Job Satisfaction	-	-
Affective Commitment	n.s.	n.s.
Self-reported Absenteeism	n.s.	n.s.

As can be seen from Table 4.10, Hypotheses 1 and 3 were not supported in relation to positive affect because emotion work did not make an unique contribution to positive affect once other psychosocial variables had been controlled. However, with respect to Hypothesis 2, support was obtained for the prediction that emotion labour would explain a larger proportion of variance in positive affect than emotion work.

With regard to negative affect, Hypothesis 1 was supported as the emotion work variables companionship and help made an unique contribution to negative affect once other psychosocial variables had been controlled. Hypothesis 2 was not supported as emotion labour and emotion work variables did not both make a

contribution to the outcome. Hypothesis 3 was not supported as emotion work variables made more contribution to variance in negative affect than emotion labour.

Hypothesis 1 was not confirmed for depression, although emotion labour (negative emotion suppression) did explain more variance in depression than emotion work, supporting Hypotheses 2 and 3.

Hypothesis 1 was not confirmed for stress. Hypothesis 2 was supported, as emotion labour made a significant contribution to the outcome, whereas emotion work did not. Hypothesis 3 was also supported when stress was the outcome.

Hypothesis 1 was not supported for personal burnout, work-related burnout, and patient-related burnout. However, Hypothesis 2 and 3 were supported, as emotion labour explained variance in personal, work-related and patient-related burnout than emotion work.

Hypothesis 1 was confirmed for job satisfaction as both emotion labour (negative emotion suppression) and emotion work (regulation) explained additional variance once other psychosocial variables were controlled. Hypothesis 2 and 3 were not supported given that emotion labour (negative emotion suppression) explained a similar amount of variance in job satisfaction (negative direction) to emotion work (both negative suppression and regulation produced standardised B values of -.15).

With respect to affective commitment, Hypotheses 1, 2 and 3 were not confirmed as neither emotion labour, nor emotion work, explained variance in affective commitment scores. Lastly, for self-reported absenteeism, Hypotheses 1, 2 and 3 were not supported as emotion labour and emotion work did not significantly contribute to variance to the outcome.

It should be noted that of the 10 hierarchical multiple regression analyses performed, which included 60 predictors, 3 predictor variables could have significantly explained variance in the outcomes due to chance alone (Type 1 error).

4.1.11 **Logistic regression for the outcome workers compensation claims (Hypotheses 1, 2 and 3)**

Preliminary analyses were performed on the data before conducting a sequential logistical regression analysis. The analyses assessed the prediction of membership in one of the two categories of having made versus having not made a workers compensation claim, using the dependent categorical variable Self-reported Injury ('compensation claims') (1=Yes, and 0=No).

One hundred and forty seven participants (67.4%) indicated that they had not made a compensation claim, whereas 71 (32.6%) respondents suggested they had made a claim. Although no strict assumptions are set with regard to logistic regression, multivariate normality and linearity among the predictors is expected to enhance the power of the test. Absence of outliers, independence of errors, adequate ratio of cases to variables, and missing data that occurs at random are also expected to increase power (Tabachnick & Fidell, 2001). However, to avoid a significant loss of data, no adjustment was made to ensure that the ratio of cases were almost equal (over and above the routine check of assumptions), given that the number of nurses who had made compensation claims was about one third of the total sample size.

The SPSS Missing Value Analysis procedure was run to investigate patterns of missing data and evaluate randomness. Missing data for all the variables are shown in Tables 4.3 and 4.4 above. Separate variance t-tests for quantitative values with more than 5% of missing cases indicated that missing data for the variable social support (family/friends) may also be related to missing data for the trait anxiety scale ($\underline{t}$ (1.9) = 7.0, $\underline{p} < .05$) and that missing data for social support (supervisors) may also be related to trait anxiety ($\underline{t}$ (207) = 4.6, $\underline{p} < .0001$). This finding aroused suspicions with regard to the non randomness of the missing data, because the social support and trait anxiety scales were placed together in the questionnaire package. Further, a statistical deviation from randomness was observed with use of Little's MCAR test (Chi-square = 887.03, DF = 742, $\underline{p} < .0001$), suggesting the introduction of biases on account of missing data. To avoid further biasing the data, incomplete scores (missing data) for variables were not removed, although this result was noted.

In addition, independent t-test comparisons were conducted in order to assess whether significant differences were revealed between each predictor variable and the outcome prior to conducting a logistic regression analysis. With the exception of the predictor variable Age ($t = -2.47$, $p < .05$), no significant differences were revealed with respect to associations between any of the predictor variables and the outcome. Therefore, no further analyses were conducted. Consequently, Hypotheses 1, 2 and 3 were not confirmed, given that neither the emotion labour, nor the emotion work variables contributed to model fit.

4.1.12 Mediation models (Exploratory analysis and Hypothesis 3)

Baron and Kenny's (1986) test of mediation is the most commonly used and most frequently cited in the psychological literature (see Baron & Kenny (1986) for review and definition of mediator and moderation). In addition to Baron and Kenny's (1986) article, Kenny (1998) defined four conditions required for mediation. The first step involves estimating that path of the independent variable (IV) predicting the dependent variable (DV); the second step includes the IV predicting the mediator (M); step 3 involves the M predicting the DV while the IV is controlled; while step 4 requires that the IV does not predict the DV once M is controlled. To test mediation using this approach, SPSS is used to ensure that the IV and the DV are significantly correlated, and that the IV and M are significantly correlated. The can be done using regression analysis. Then IV and M are entered in a regression analysis (in that order) together with the DV as the criterion. The researcher assesses whether the M and DV are significantly correlated after controlling for IV (which will preferably be uncorrelated with the DV).

However, many researchers (Dudley, Benuzillo & Carrico, 2004; Mackinnon, Warsi & Dwyer, 1995; Mackinnon *et al.*, 2002; Preacher & Hayes, 2004; Shrout & Bolger, 2002) argue that only steps 2 and 3 are necessary for mediation. This is because an initial correlation between the IV and DV (step 1) is not essential, and as referred to above, a non significant correlation between the IV and DV (step 4) is only

required for identifying complete or full mediation. An extension of the topic of mediation is provided in Appendix 4.4.

The indirect effect (the effect of the mediator on the relationship between IV and DV) is of particular importance in mediation. The significance of the indirect effect may be tested using the Sobel test (Mackinnon & Dwyer, 1993; Mackinnon, 1994; Sobel, 1990). The Sobel test is selected in response to limitations associated with Baron and Kenny's approach, and provides improvement on issues of power, Type 1 error, suppression effects, as well as emphasising importance of the indirect effect. The Sobel test, used by the researcher to calculate mediation effects, utilises a hypothesis of no difference between the total effect (termed path c) and the direct effect (path c'). More information on using the Sobel test to calculate indirect effects is provided in Appendix 4.5.

To investigate Hypotheses 1 and 3, 76 simple mediation analyses were conducted (using the Sobel test), in order to assess if emotion labour or emotion work significantly mediated or moderated relationships between other psychosocial variables and outcomes. All 3 emotion labour subscales, all 3 emotion work subscales, and all 3 social support subscales were (individually) tested as both intervening variables, or mediators, as well as predictor variables (in the case of either emotion labour, emotion work, or social support acting as the mediator). These variables were tested among combinations of other individual difference and work environment variables studied in the research program, set as independent variables only. Twenty-five models held significant z scores, and direct, indirect and total effects were then calculated to determine the type of mediation that had taken place, as well as the amount of variance explained by the mediator. The indirect effect was calculated as the sum of the Pearson correlation between IV and M, with the correlation between M and the DV. The direct effect was the direct correlation between the IV and the DV, while the total effect was the sum of the direct and indirect effects, respectively. Partial mediation was recorded if the variance explained by the mediator was greater than .06. Consequently, only thirteen models with significant Sobel test scores are presented (Table 4.11).

Table 4.11

Simple Mediation Analyses

Work-Family Conflict —a→ EL (Negative Suppression) —b→ Negative Affect

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.11	.03	.74	.18	2.99*	.28*** (.22***)	.06**	Partial

Work-Family Conflict —a→ EL (Negative Suppression) —b→ Depression

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.11	.03	.47	.12	-2.91*	.31*** (.25***)	.06***	Partial

Family-Work Spillover —a→ EW (Companionship) —b→ Depression

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.11	.05	-.22	.06	-1.94*	.16* (-.09*)	.07**	Complete

Social Support (Supervisor) —a→ EL (Negative Suppression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.10	.04	.55	.10	-2.27*	-.31** (-.25**)	-.06***	Partial

Work-Family Conflict —a→ EL (Feigned Positive Expression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.09	.03	.34	.09	2.44*	.62* (.56*)	.06**	Partial

Work-Family Conflict —a→ EL (Negative Expression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.11	.03	.55	.10	3.45**	.62* (.52*)	.10**	Partial

Family-Work Conflict —a→ EL (Negative Suppression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.09	.03	.55	.10	2.56*	.25** (.19**)	.06***	Partial

Work-Family Conflict —a→ EL (Negative Suppression) —b→ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.11	.03	.61	.11	3.46 *	.53** (.38**)	.15***	Partial

Family-Work Conflict —a→ EW (Companionship) —b→ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.18	.06	-.16	.06	1.97*	.28** (.22**)	-.06**	Partial

Family-Work Conflict —a→ EW (Regulation) —b→ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.25	.08	.12	.05	1.95*	.28** (.22**)	.06**	Partial

Social Support (Supervisors) —a→ EL (Negative Suppression) —b→ Stress

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.10	.04	.28	.41	-2.33*	-.30** (-.23**)	-.07***	Partial

Social Support (Supervisors) —a→ EL (Negative Suppression) —b→ Job Satisfaction

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.10	.04	-.2.27	.39	.51*	-.12* (-.06*)	.06***	Partial

Social Support (Family/Friends) —a→ EW (Companionship) —b→ Job Satisfaction

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.28	.07	.76	.21	2.70*	.14* (.07*)	.07	Partial

Note: *** = p<.001. ** = p<.01. * = p<.05. a = unstandardized regression coefficient for the association between the independent variable and the mediator, b = unstandardised regression coefficient for the association between the mediator and the dependent variable (when the independent variable is also a predictor of the dependent variable), *S*a = Standard error of a, *S*b = standard error of b. z= Sobel coefficient. IV = Independent Variable. DE (AM) = Direct Effect (Beta after mediation). IE = Indirect Effect

An inspection of the table reveals that, although one model showed complete mediation, the majority of models indicated partial mediation. Although many of the original 76 simple mediation effects were non significant, this exploratory analysis revealed that the predictive power of emotion labour and emotion work, respectively, differed among the variables studied. Emotion labour and emotion work variables, respectively, significantly mediated 25 relationships, influencing the effect of different psychosocial factors outcomes in different ways. Further support was also provided for Hypothesis 3, as the results revealed that emotion labour performance explained more variance in negative outcomes than emotion work performance.

For instance, while there was a significant (positive) direct effect between family to work conflict and personal burnout, emotion work (companionship) influenced this relationship such that family to work conflict became negatively related to personal burnout in one model. Similarly, a significant (positive) direct effect between social

support from supervisors and job satisfaction was negatively influenced by negative emotional suppression.

Emotion labour (*feigned positive emotion expression*) operated as a mediator in the relationship between work to family conflict and work-related burnout.
Emotion labour (*suppressing negative emotions*) operated as a mediator in the relationships between work to family conflict and negative affect, work to family conflict and depression, supervisor social support and work-related burnout, work to family and family to work conflict and work-related burnout, work to family and family to work conflict and personal burnout, supervisor social support and stress (emotion labour performance increased stress), as well as supervisor social support and job satisfaction (emotion labour performance decreased job satisfaction).

Companionship operated as a mediator in the relationships between family to work positive spillover and depression (negative direction), family to work conflict and personal burnout (as a buffer, altering the direction from negative to positive), and in the relationship between social support (family/friends) and job satisfaction. Regulation mediated the relationship between family to work conflict and personal burnout (positive direction).

It should be noted that given that 76 mediation effect analyses were conducted, 4 of the significant effects were likely due to chance. The same result was also likely with regard to the moderation effect analyses displayed below (4 effects may likely have been be significant due to chance alone).

4.1.13 Moderation effect analyses (Exploratory analysis and Hypothesis 3)

Seventy-six moderation effect models were calculated via testing the significance of an A x B interaction, where B represented the third variable, or moderator. The main effects (predictor and intervening variable) were entered on step 1 of a hierarchical regression, followed by the interaction term on step 2. With respect to the variables entered, the procedure was similar to that performed in the mediation analyses (all 3 emotion labour subscales, all 3 emotion work subscales, and all 3 social support

subscales were (individually) tested as both moderators and predictor variables). Once again, these variables were tested among combinations of other individual difference and work environment variables studied in the research program. The effect of emotion labour, emotion work and social support variables as moderators was observed, and compared with emotion labour, emotion work and social support variables as predictors. The outputs from the models were plotted via Microsoft Excel. The effects were then plotted using unstandardised B values from the hierarchical regressions using the linear equation: $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3$.
The values were standardised across high and low levels of the third and predictor variables (determined as 1 standard deviation below and 1 standard deviation above), so that all 3 variables could be compared.

Thirteen significant interaction effects were found. The first interaction effect [Supervisor Social Support X Emotion Work (Companionship) ($\underline{\beta}$ = -.12, $\underline{p}$ < .05)] indicated that low emotion work (companionship) performance coupled with high social support from supervisors, resulted in lower work-related burnout levels. In addition, when companionship behaviours were performed more often, this alleviated work-related burnout scores in the presence of low social support. This is compared with when companionship behaviours were performed less often, coupled with low availability of social support from supervisors, resulting in higher work-related burnout.

In effect, work-related burnout levels were significantly reduced when companionship behaviours were performed often. However, burnout was also influenced by high availability of supervisor social support, which reduced work-related burnout further. The observation of equal work-related burnout scores for both low and high prevalence of companionship behaviours when social support was high indicated that social support was key in predicting work burnout scores (Figure 4.2).

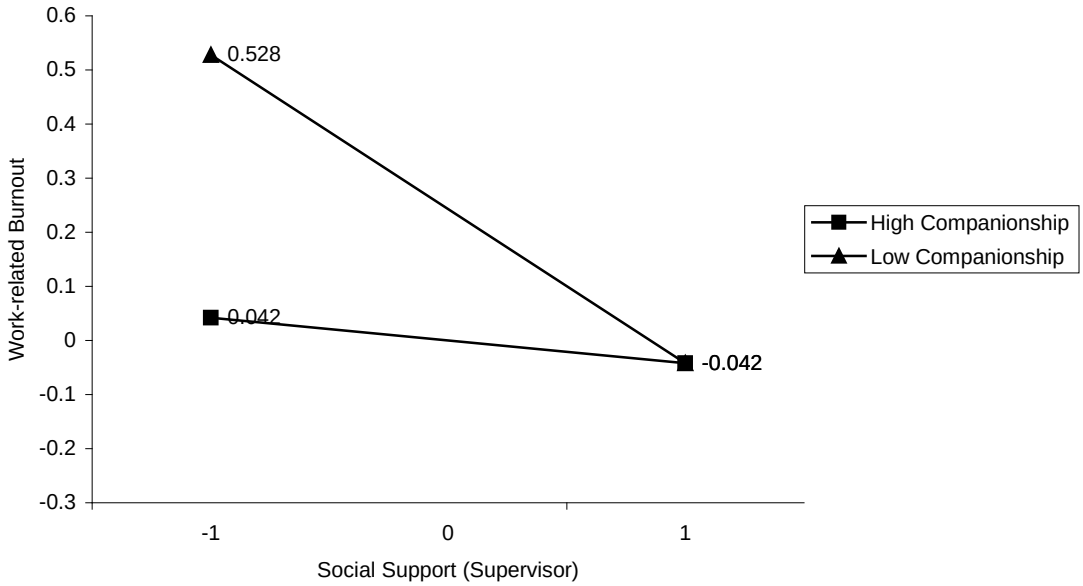

Figure 4.2. Moderating effect of Emotion Work (Companionship) on the relationship between Social Support (from Supervisors) and Work-related Burnout.

The significant Social Support (Supervisor) X Emotion Work (Regulation) interaction ($\underline{\beta} = .16$, $\underline{p} < .05$) indicated that low regulation performance combined with either high or low availability of supervisor social support resulted in high personal burnout. Personal burnout was low when regulation performance was performed often, and was coupled with high availability of supervisor social support (Figure 4.3).

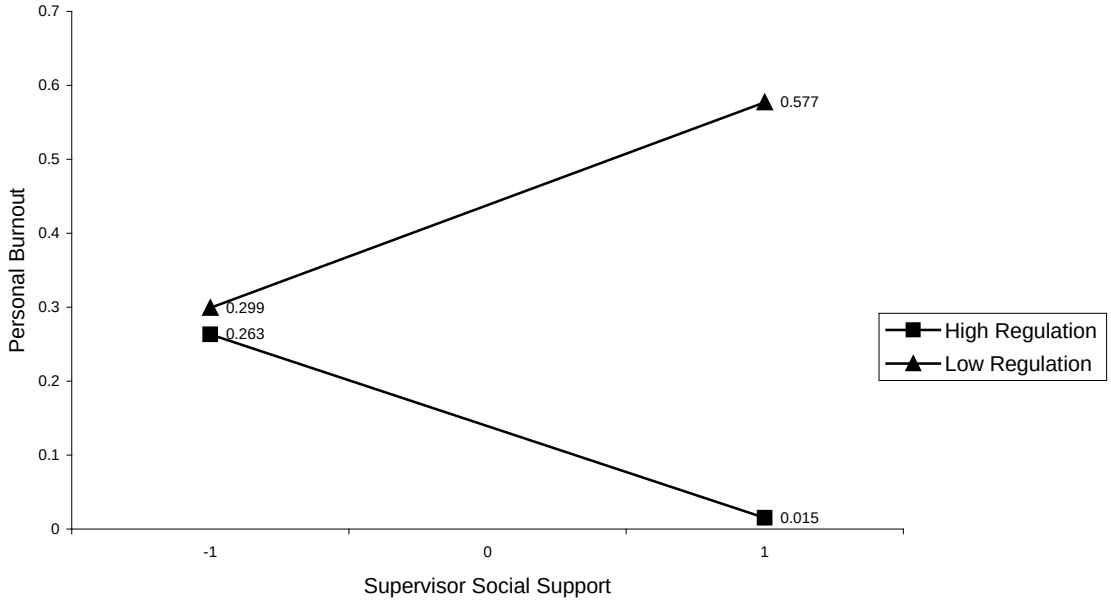

Figure 4.3. Moderating effect of Emotion Work (Regulation) on the relationship between Social Support (from Supervisors) and Personal Burnout.

The Family to Work Conflict X Emotion Work (Companionship) model ($\underline{\beta} = .11$, $\underline{p} < .05$) indicated that work-related burnout was highest when companionship behaviours were performed less often and family to work conflict was high. The lowest level of work burnout was observed when companionship behaviours were performed often and family to work conflict was low (Figure 4.4).

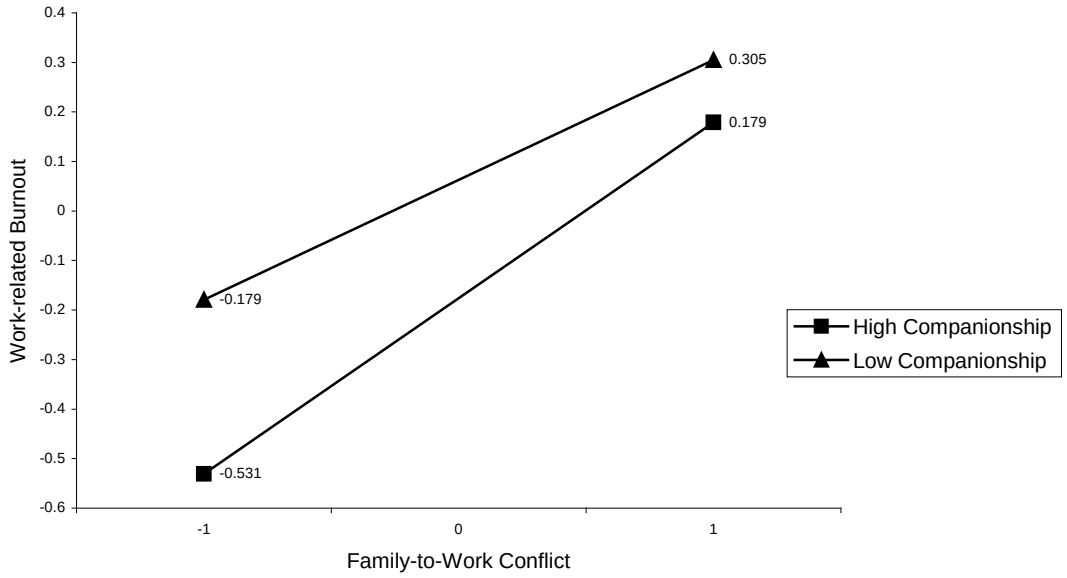

Figure 4.4. Moderating effect of Emotion Work (Companionship) on the relationship between Family to Work Conflict and Work-related Burnout.

The significant interaction between Social Support (Supervisor) X Emotion Work (Regulation) on work-related Burnout ($\underline{\beta} = .14$, $\underline{p} < .02$) indicated the impact of high regulation performance (above 1 standard deviation) on nurse stress. There was a small change in nurse stress scores when regulation performance was high across low and high social support scores, respectively. However, lower nurse stress was observed when regulation was performed less often and availability of supervisor social support was high (Figure 4.5).

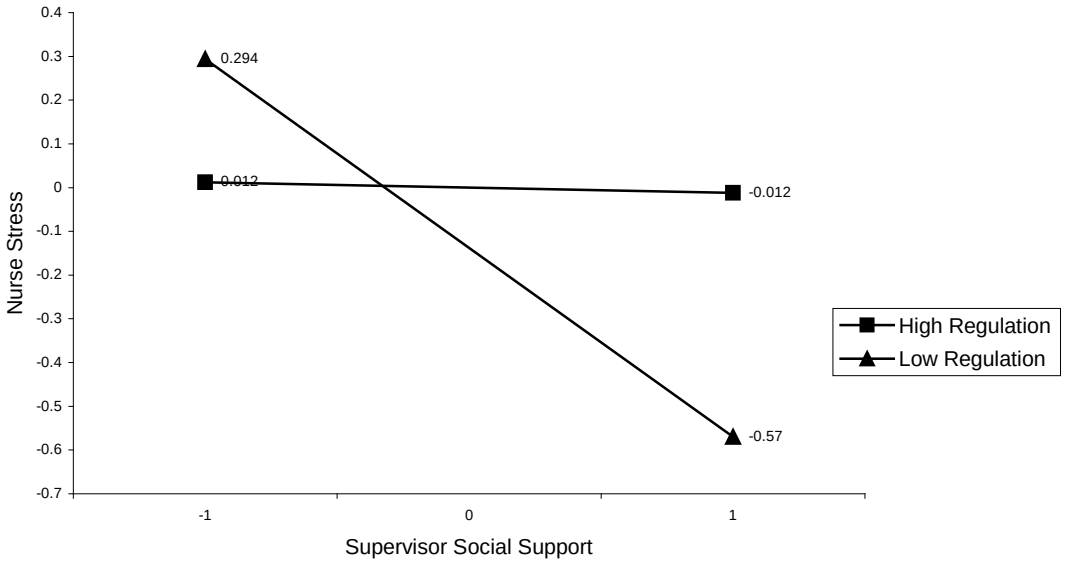

Figure 4.5. Moderating effect of Emotion Work (Regulation) on the relationship between Social Support (from Supervisors) and Nurse Stress.

Figure 4.6 displays the significant interaction effect of Work to Family Spillover X Emotion Labour (Feigned Positive Expression) on nurse stress (β= .14, p < .05). Little feigning of positive emotions and high work to family positive spillover led to higher job satisfaction. The difference in job satisfaction scores when positive expression was often feigned and work to family positive spillover was high or low, respectively, was slight. This indicated that work to family positive spillover did not have a strong effect on job satisfaction.

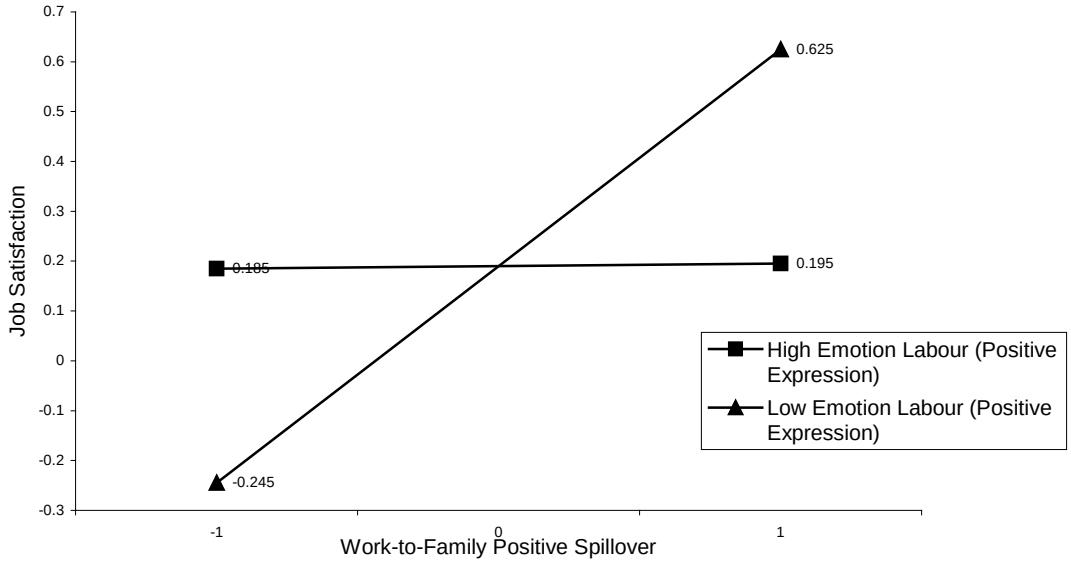

Figure 4.6. Moderating effect of Emotion Labour (Feigned Positive Expresion) on the relationship between Work to Family Positive Spillover and Job Satisfaction.

With respect to the significant Work to Family Positive Spillover X Emotion Labour (Feigned Positive Expression) interaction on job satisfaction ($\underline{\beta}$ = -.22 $\underline{p}$ < .01), job satisfaction was highest with little suppression of negative emotions and when work to family positive spillover was high. When negative emotions were suppressed often and work to family positive spillover was high, job satisfaction increased (Figure 4.7).

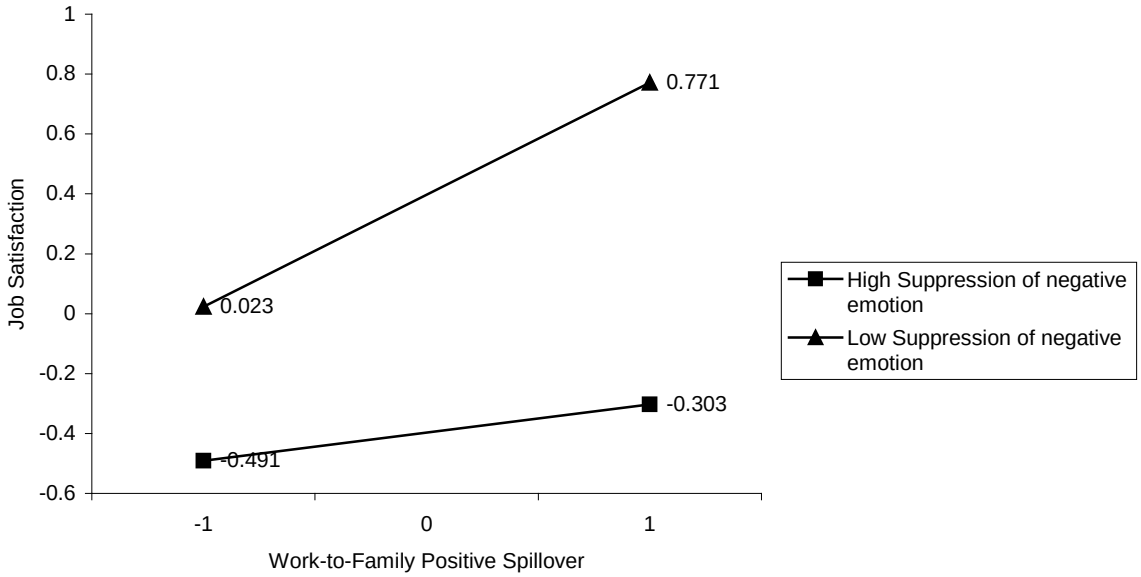

Figure 4.7. Moderating effect of Emotion Labour (Suppression of Negative Emotion) on the relationship between Work to Family Positive Spillover and Job Satisfaction.

The significant interaction between Social Support (Family/Friends) X Emotion labour (Negative Emotion Suppression) ($\underline{\beta}$ = .12, $\underline{p}$ = .05) on nurse stress indicated that suppressing negative emotions often strongly influenced nurse stress scores regardless of whether social support (family/friends) was available. However, with little suppression of negative emotions, availability of social support (family/friends) acted to alleviate nurse stress (Figure 4.8).

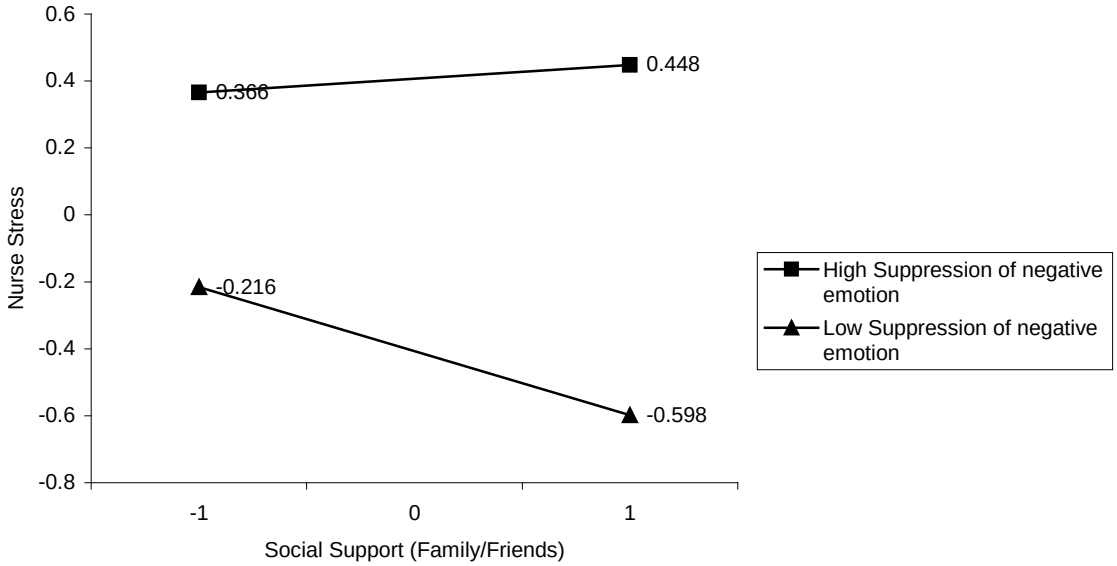

Figure 4.8. Moderating effect of Emotion Labour (Suppression of Negative Emotion) on the relationship between Social Support (Family/Friends) and Nurse Stress.

A reciprocal effect was observed between high and low emotion labour (feigned positive expression), respectively, for the significant interaction observed between Family to Work Positive Spillover X Emotion Labour (Positive Expression) on job satisfaction ($\beta = -.12$, $p < .05$) (Figure 4.9). Job satisfaction was higher when positive emotions were feigned less often and family to work positive spillover was high. Job satisfaction was lower with little feigning of positive expression and when family to work positive spillover was low. Interestingly, the reverse was the case when positive emotions were feigned often and family to work positive spillover was high. This interaction yielded low job satisfaction, compared with when positive emotions were feigned often and family to work positive spillover was low. In this case, greater feigning of positive emotions had a stronger influence on job satisfaction than family to work positive spillover.

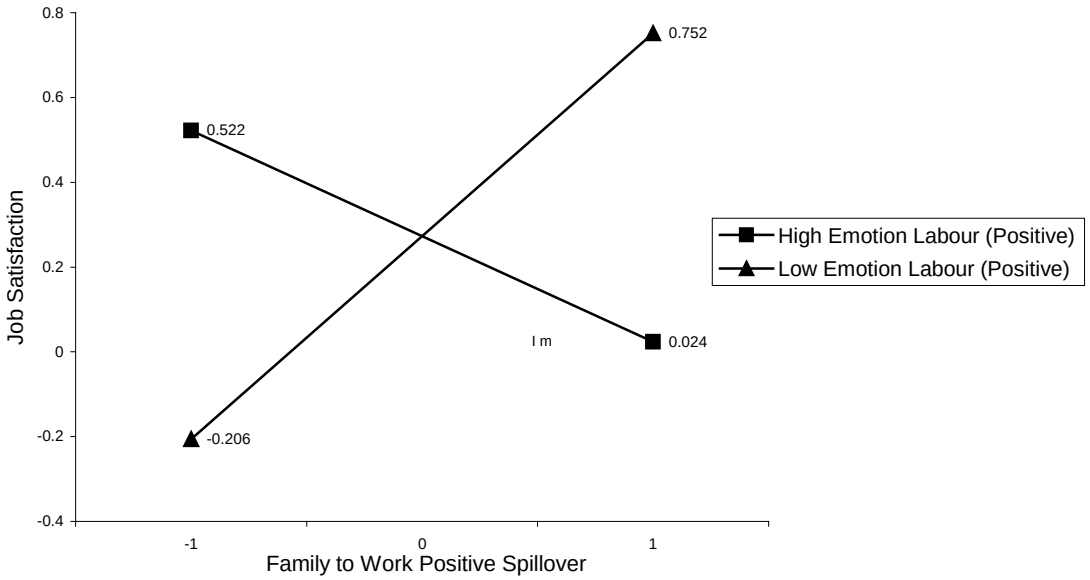

Figure 4.9. Moderating effect of Emotion Labour (Feigned Positive Emotion Expression) on the relationship between Family to Work Positive Spillover and Job Satisfaction.

Figure 4.10 indicates that for the interaction of Emotion Work (Companionship) X Social Support (Supervisor) ($\underline{\beta}$ = -.12, $\underline{p}$ < .05) the lowest work-related burnout scores were observed when there was a greater performance of companionship (+1 sd) and high availability of supervisor social support. The next lowest work-related burnout score was observed when availability of supervisor social support was high and there was little companionship performance. When supervisor social support was low, the amount of companionship did not significantly alter work-related burnout. It could therefore be inferred that availability of supervisor social support had a significant influence on the relationship between performance of companionship behaviours and work-related burnout.

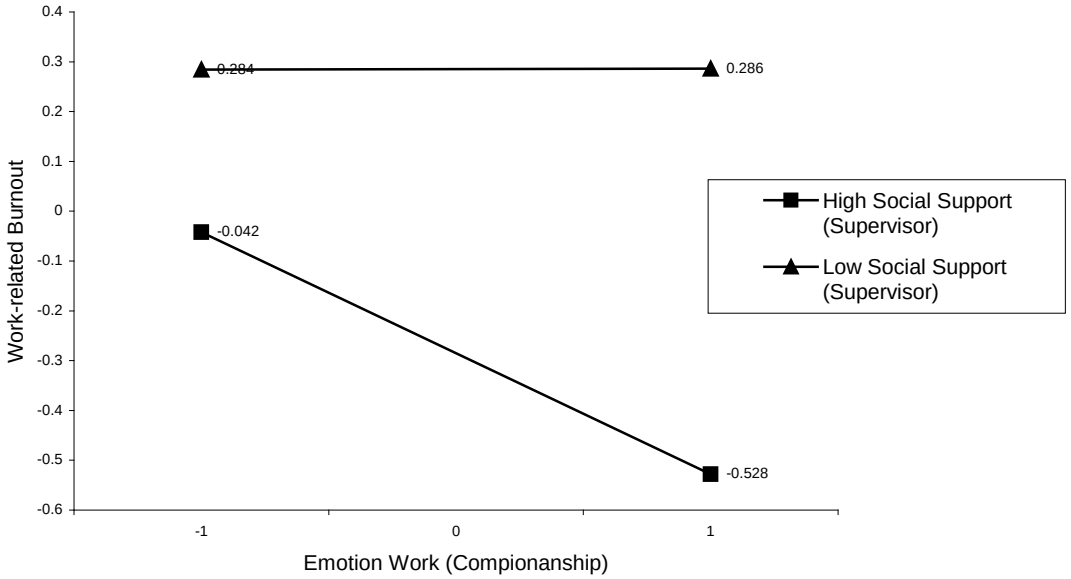

Figure 4.10. Moderating effect of Social Support (from supervisors) on the relationship between Emotion Work (Companionship) and Work-related Burnout.

For the significant interaction Emotion Work (Regulation) X Social Support (Supervisor) ($\underline{\beta}$ = .11, $\underline{p}$ = .05) on work-related burnout, higher work-related burnout was observed when supervisor social support was low and regulation was performed often. In particular, greater regulation performance led to an increase in work-related burnout scores, notwithstanding the influence of high availability of supervisor support. Lower work-related burnout scores were observed once regulation performance was reduced (Figure 4.11).

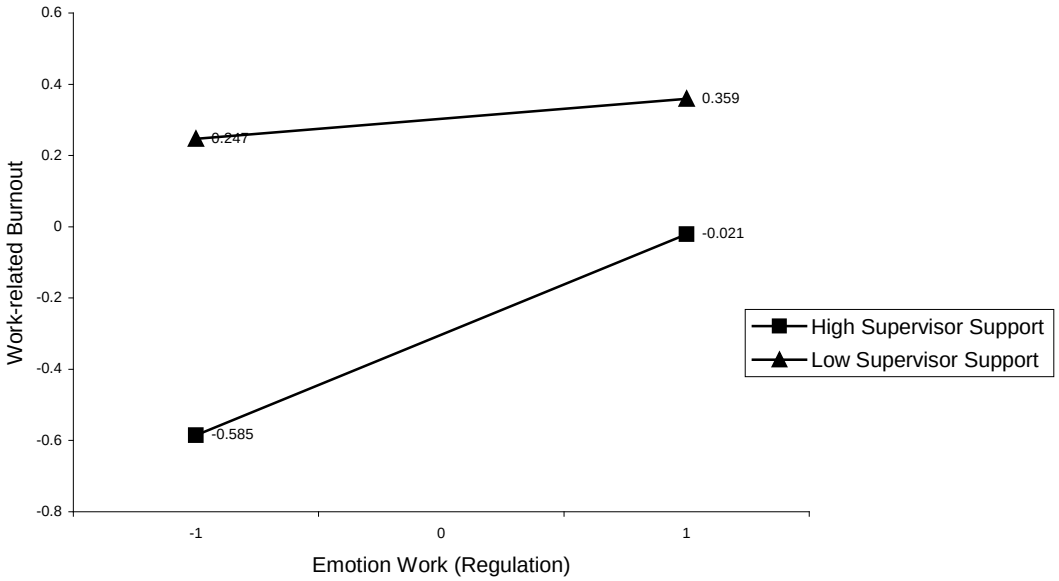

Figure 4.11. Moderating effect of Social Support (from Supervisors) on the relationshipbetween Emotion Work (Regulation) and Work-related Burnout.

For the significant interaction Social Support (Supervisor) X Emotion Labour (Negative Suppression) ($\underline{\beta}$ = .13, $\underline{p}$ = .05), positive affect was higher when there was little suppression of negative emotions and availability of supervisor social support was high. By contrast, positive affect was lower with greater negative emotion suppression coupled with low availability of supervisor support (Figure 4.12).

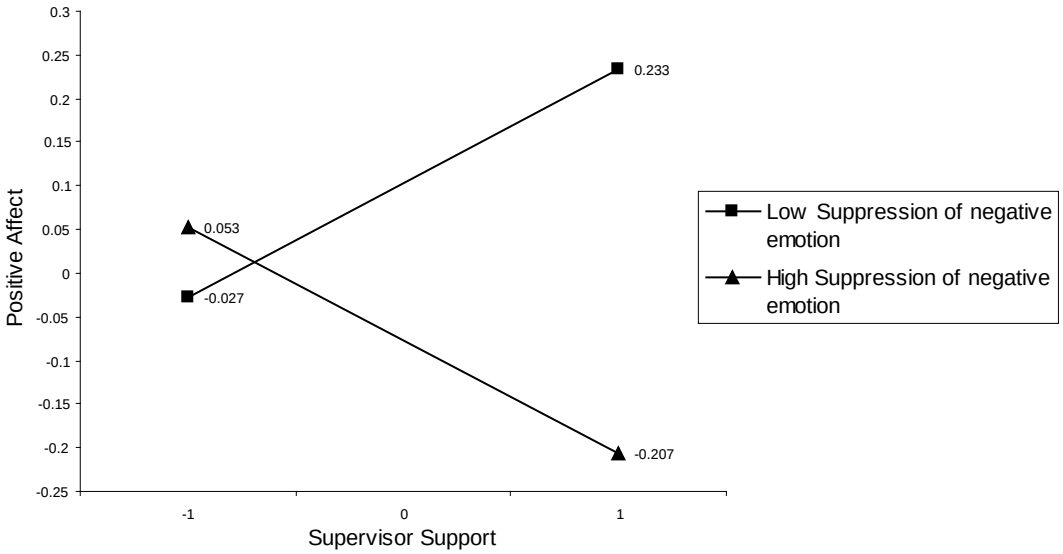

Figure 4.12. Moderating effect of Emotion Labour (Suppression of Negative Emotion on the relationship between Social Support (Supervisor) and Positive Affect.

When the significant interaction of Social Support (Family/Friends) X Emotion Work (Companionship) on depression was examined ($\underline{\beta}$ =.16, $\underline{p}$ < .01), depression was low when emotion work (companionship) performance was low and availability of social support (family/friends) was high. Interestingly, depression scores increased slightly with greater companionship performance and when availability of supervisor social support was high, compared with when companionship was performed often and availability of social support from family and/or friends was low (Figure 4.13).

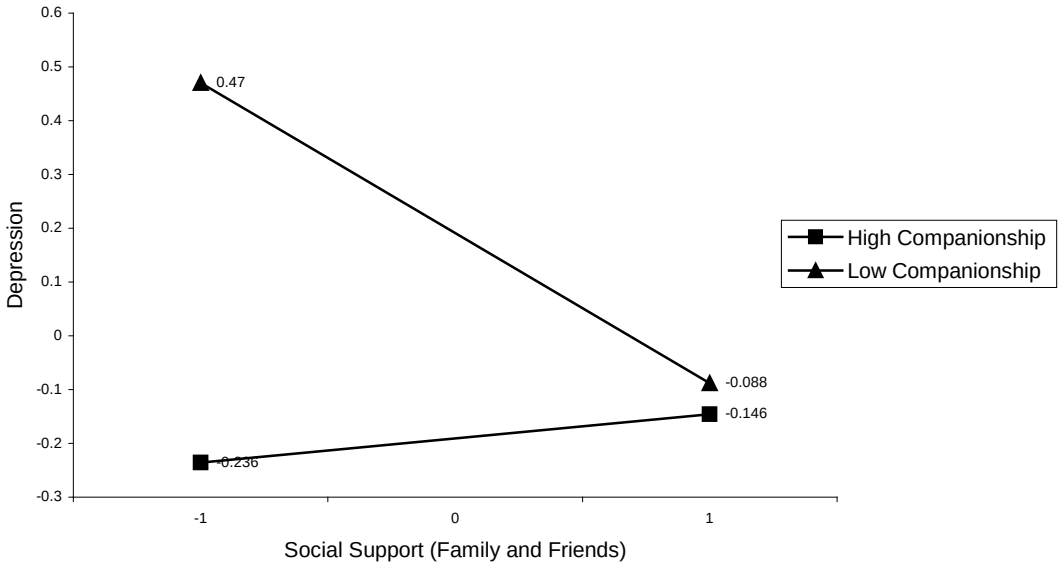

Figure 4.13. Moderating effect of Emotion Work (Companionship) on the relationship between Social Support (Family/Friends) and Depression.

For the significant interaction Trait Anxiety X Emotion Work (Regulation) ($\underline{\beta}$ = -.16, $\underline{p}$ < .05), as indicated in Figure 4.14, high trait anxiety had a significant influence on work-related burnout, notwithstanding how often regulation behaviours were performed. The next highest work-related burnout score resulted from the combination of low trait anxiety and when regulation was performed often. Work-related burnout was lower when low trait anxiety was coupled with little regulation performance.

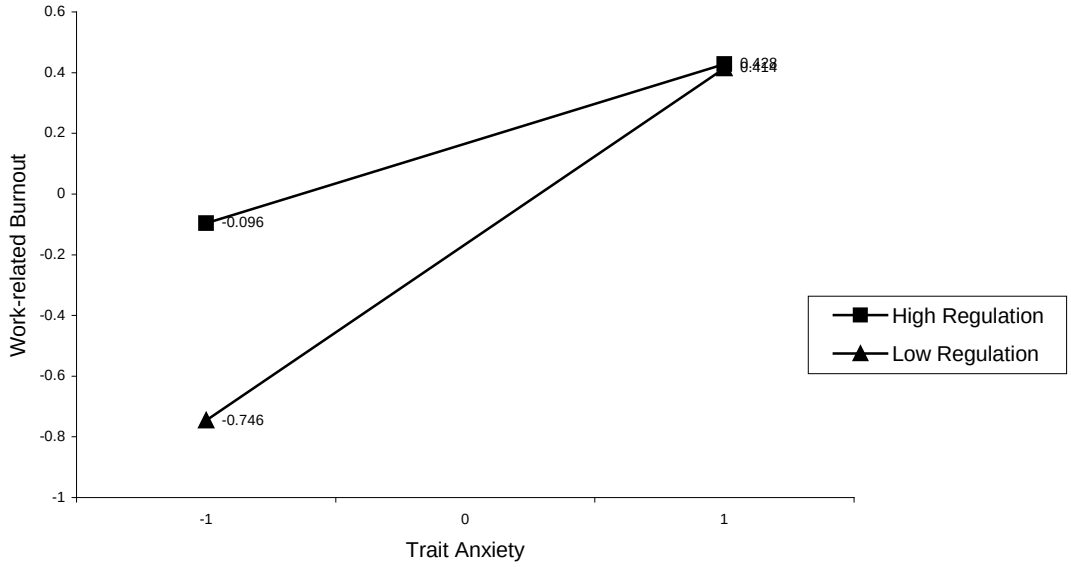

Figure 4.14. Moderator effect of Emotion Work (Regulation) on the relationship between Trait Anxiety and Work-related Burnout.

It should be noted that out of the 13 significant moderation effects found, 1 moderation effect may have been significant by chance, due to Type 1 error.

4.1.14 Modelling emotion labour and emotion work variables with outcomes using Structural Equation Modelling (Hypotheses 4a and 4b)

Hypothesis 4a and 4b were tested by an examination of indirect and direct effects in structural equation modelling. Preliminary correlations were reviewed, including a negative significant relationship between work-related burnout and job satisfaction as expected. Observed relationships included 1) a positive significant association between companionship and job satisfaction, and a negative significant association between regulation and job satisfaction, 2) negative significant relationships between emotion labour (both feigned positive expression and negative emotion suppression) and job satisfaction, 3) significant positive associations between all 3 emotion labour variables and work-related burnout, and between help and regulation and work-related burnout, as well as 4) a negative significant association between companionship and work-related burnout (see Table 4.12). Of particular note were significant associations observed between deep acting (a subscale consisting of 2 items of Brotheridge and Lee's (2003) requirements and regulation strategies scale) and all the emotion labour

and emotion work variables. Surface acting significantly correlated positively with only the emotion labour variables.

On consideration that one of the items of the deep acting factor was altered by re-wording of the item, and had therefore acquired a different meaning to what was intended, the deep acting subscale (containing two items) was separated and correlation analyses with the emotion demand variables were once again performed. The deep acting item that was not altered continued to correlate with the emotion labour variables: positive expression (r = .32, p< .01) and negative suppression (r = .22, p< .01), although not with any of the emotion work variables, whereas the altered deep acting item correlated with all emotion labour and emotion work variables, respectively, except negative emotion suppression and regulation. The altered item *'How often do you actually experience the emotions you are expected to show?'* is closely aligned with the concept of emotion consonance. It did not significantly correlated with work-related burnout, although it did significantly relate to job satisfaction (r = .15, p <.05). Surface acting significantly correlated with work-related burnout (r = .32, p < .01). The 'deep acting' factor was not used as an intervening variable because a factor analysis of the 2 items revealed very low internal consistency (alpha = .11) (Nunnally & Bernstein, 1994). Given that variables containing 1 item were included in the structural equation model, any significant associations were deemed to be conservative.

The presence of missing data among the dataset may affect the investigation of modification fit indices. A non significant chi square test of the difference between y and x values for missing values (i.e., missing value analysis in SPSS, or MVA), indicated that data were missing cases at random or MCAR. However, limitations associated with listwise and pairwise deletion and data imputation include that these *ad hoc* mechanisms can substantially affect the accuracy of parameter estimates, parameter estimate bias and model fit. Peters and Enders (2002, p, 91) state, 'because sampling variance is inversely related to sample size, this suggests that a 50 per cent increase in sample size would be required to yield the same level of efficiency as the maximum likelihood estimators. This suggests that while listwise deletion is unbiased over the long run, parameter estimates from a single sample would be closer, on average, to the true population parameter when using maximum likelihood

estimators'. A maximum likelihood algorithm missing data estimation method was therefore used, via the Amos 5 program.

A variance-covariance matrix (Joreskog & Sorbom, 1989) was produced using AMOS 5 (Arbuckle & Wothke, 1999), in order to test the hypothesised models. The variables were modelled in a path diagram according to the preliminary relationships found and tested for model fit using structural equation modelling. It was hypothesised that companionship and help would both have direct effects on job satisfaction and work burnout, and would also contribute to indirect effects via the item labelled 'emotional consonance'. This indicates that nurses who performed companionship, and to a lesser extent help, for the benefit of patients and colleagues were more likely to experience emotional consonance, which would, in turn, also contribute to job satisfaction beyond the direct effects. It was also hypothesised that regulation would have a direct effect on job satisfaction. Similarly, it was hypothesised that the more emotion labour (feigned positive emotion expression), performed for the benefit of an organisation, the more likely negative emotions would be suppressed and, in turn, use of the emotion regulation strategy of surface acting would increase. Direct and indirect effects on work-related burnout and job satisfaction, respectively, were proposed.

Model identification and estimation of each of the model factor structures was initially conducted. Items for the work-related burnout and job satisfaction scales were parcelled, such that two items were encapsulated into one when performing confirmatory factor analyses and in developing structural models. Fit indices observed confirmed acceptable to good fit for each of the scales used.[1]

Model identification and model estimation

Path analyses representing relationships between emotion labour variables, the intervening variable 'surface acting' and the outcome work-related burnout were originally modelled separately from path analyses representing the relationships between emotion work variables, the intervening variable labelled 'emotional

[1] Confirmatory factor analyses of the factor structures were beyond the scope of the research program and are not presented. In addition, exploratory factor analyses on the same dataset were previously conducted on each of the constructs.

consonance' and the outcome of job satisfaction. The relationships between variables were modelled and nested models were compared. Maximum likelihood estimation was employed to estimate the models.

In line with MacCallum (1996), necessary paths to all models were added before unnecessary parameters were deleted. The two best fitting models (one model representing emotion labour variables, the other emotion work variables) were then combined into one structural model. Model 1 was the proposed simple mediation model of a direct effect of positive emotion expression on negative emotion suppression, which in turn has a direct effect on work-related burnout, as shown in Figure 4.15. All parameter estimates were significant, and fit indices were within the range of acceptable fit according to the guidelines of Engel, Moosbrugger and Muller (2003). Consequently, it appeared that negative emotion suppression mediated the relationship between feigned positive expression and work-related burnout. The fit indices for Model 1 appear in Table 4.12**.**

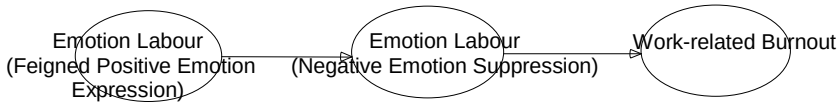

Figure 4.15. Path Analysis representing Model 1.

Table 4.12

Chi Square and Fit indices of the Path Analyses

	χ^2	df.	χ^2/df	RMSEA	RMSEA LO 90	RMSEA HI 90	NFI	CFI	AIC	ECVI
Model 1	152.31*	74	2.06	.07	.05	.08	.90	.95	242.31#	1.02#
Model 2	174.79*	85	2.06	.07	.05	.08	.89	.94	274.79 #	1.16#
Model 3	174.80*	86	2.03	.07	.05	.08	.89	.94	272.80 #	1.15#
Model 4	929.59*	396	2.35	.07	.06	.08	.75	.84	1127.59#	4.79#
Model 5	201.95*	102	1.98	.06	.04	.05	.87	.93	301.95#	1.274#
Model 6	687.63*	423	1.63	.05	.04	.06	.81	.92	895.63#	3.78#

Note: χ^2 = Chi Square. df. = degrees of freedom, χ^2/df = Chi Square/degrees of freedom ratio, RMSEA = Root Mean Square Error of Approximation, GFI = Goodness of Fit Index, NFI = Normed Fit Index, CFI = Comparative Fit Index, AIC = Akaike Information Criterion. # = smaller than for comparison model. * = $\underline{p} < .0001$.

Direct paths between negative emotion suppression and surface acting, and surface acting and work-related burnout were added to Models 2 and 3. Model 2 pertained to both feigned positive emotion expression and negative emotion suppression holding direct effects on surface acting, which in turn, had a direct effect on work-related burnout; in addition to having a direct effect on burnout, feigned positive emotion expression and negative emotion suppression would also indirectly effect work-related burnout via surface acting. A diagram to representing Model 2 is shown in Figure 4.16. Standardised regression weight estimates for the paths between feigned positive emotion expression to work-related burnout and feigned positive emotion expression to surface acting were non-significant (direct effect on work burnout: beta = .32, p = .11; direct effect on surface acting, beta = .24 p = .95).

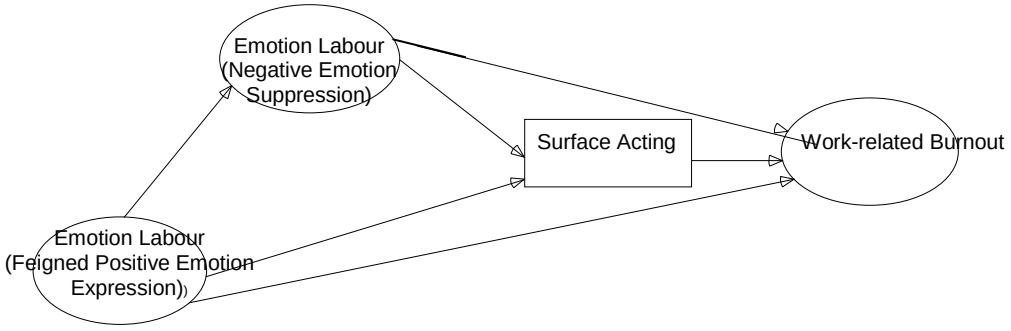

Figure 4.16. Path Analysis representing Model 2.

Model 3 differed in that the path representing the direct effect between feigned positive expression and surface acting was removed, so that negative emotion suppression was the only variable proposed to have both direct and indirect effects (via surface acting) on work-related burnout. Feigned positive emotion expression was proposed to indirectly affect work-related burnout via negative emotion suppression (and in turn, surface acting). Model 3 is shown in Figure 4.17.

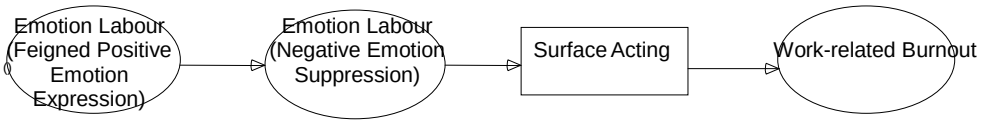

Figure 4.17. Path Analysis representing Model 3.

The χ^2 and fit indices values for the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and the Normative Fit Index (NFI) did not reveal significant improvement in Model 3 compared with Model 2. In fact, the fit indices and estimates for Models 2 and 3 were very similar. However, for

theoretical reasons Model 3 was retained, despite the previous observation that the regression weight estimate of the path from feigned positive expression to surface acting was non-significant.

In order to model associations between emotion work variables and outcomes, Model 4 (Figure 4.18) was constructed as a recursive representation of the emotion work variables and their relationships with both the 'emotional consonance' concept and job satisfaction. Each emotion work variable was tested for significant direct effects on the variable labelled emotional consonance, as well as on job satisfaction. For theoretical reasons, an additional direct effect from help to job satisfaction was added, notwithstanding that this bi-variate association was non significant. Inspection of the standardised regression weights revealed that the paths indicating direct effects from emotion work (help) to 'emotional consonance' and emotion work (regulation) to 'emotion consonance' were non significant (Help to 'emotional consonance': Beta = -.09, p = .57; Regulation to 'emotional consonance': Beta = .08, p = .42). From a structural viewpoint, this model was therefore to be rejected or otherwise modified with the non-significant paths removed.

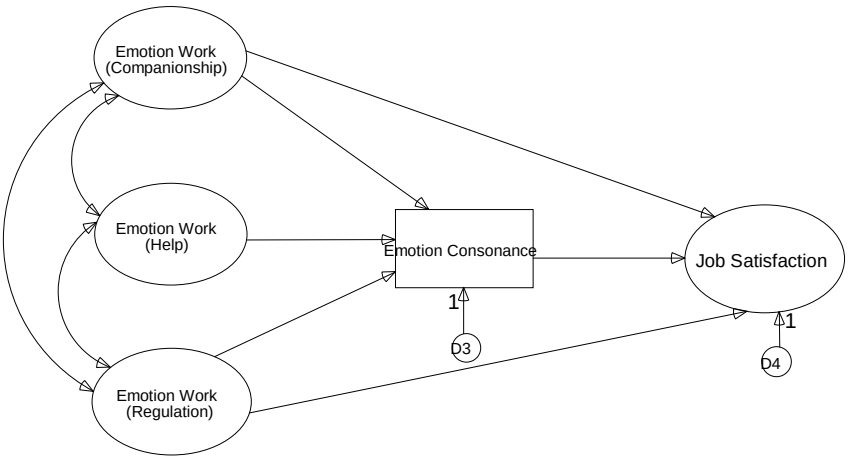

Figure 4.18. Path Analysis representing Model 4.

The paths representing direct effects between emotion work (help and regulation) and emotion consonance, respectively, were omitted from Model 5. Inspection of fit indices indicated that a few indices, namely, χ^2/df and RMSEA, indicated acceptable fit of the model to the data. The fit indices for Model 4 are reported in Table 4.12. The fit indices for Model 5 suggested a significant improvement of fit by comparison to Model 4, with the majority of fit indices (apart from NFI) indicating acceptable to good fit. Therefore, Model 5 (Figure 4.19) was selected as the model that best fit the data. All path associations were significant (as indicated by standardised regression weights).

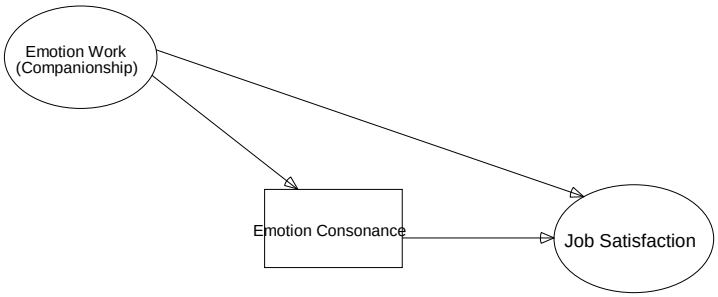

Figure 4.19. Path Analysis representing Model 5.

The independence model testing the hypothesis that all variables were uncorrelated was rejected for all models: Model 1: [χ^2 (105, N = 238) =1516.89, p = .000]; Model 2 [χ^2(120, N = 238) =1564.66, p = .000)]; Model 3: [χ^2(120, N =238) =1594.66, p = .000]; Model 4: [χ^2(465, N = 238) = 3772.57, p = .000]; Model 5: [χ^2(136, N = 238) = 1583.10, p = .000]; Full Model: [χ^2(496, N = 238) = 3618.01, p = .000], confirming the presence of inter-correlations in the data and therefore its suitability for SEM analysis. There were also significant improvements in fit between the hypothesised models and the respective independence models: Model 1: [χ^2(31, N = 238) = 1364.58, p = .000]; Model 2: [χ^2(35, N = 238) = 1389.87, p = .000]; Model

3: [χ^2(34, N = 238) = 1419.86]; Model 4: (χ^2(69, N = 238) = 2842.98, p= .000] Model 5: [χ^2(34, N = 238) = 1381.15, p = .000]; Full Model: [χ^2(73, N = 238) = 2930.38, p = .000.

Models 3 (the model chosen to represent relationships among emotion labour variables) and 5 (the model chosen to represent associations involving emotion work variables) were then combined in the final model (Model 6). The majority of model fit indices showed acceptable to good fit (except NFI, for which a score must be above .90).

The majority of parameter estimates of Model 6 were significant. The significant standardised regression weights representing direct effects were as follows: feigned positive emotion expression on negative emotion suppression was .55, p < .001, the direct effect of negative emotion suppression on surface acting was .44, p < .001, feigned positive emotion expression on emotional consonance was .26, p < .001, companionship on emotional consonance was .27, p < .001, surface acting on work-related burnout was .23, p < .05, feigned positive emotion expression on work-related burnout was .19, p < .05 and emotional consonance on job satisfaction was .13, p < .05. Therefore, the path between feigned positive emotion expression and work-related burnout approached significance in the final combined model. The estimate for the covariance shared between companionship (emotion work) and feigned positive emotion expression (emotion labour) was .11.

Although there was concern that the standardised regression weight estimate for the direct effect of emotional consonance on job satisfaction was small, the fact that the variable emotional consonance contained one single item was taken into account. The standardised regression weights for the direct effects of emotion work (companionship) on work-related burnout, and negative emotion suppression on job satisfaction were non significant (Beta = -.18, p = .09; Beta = -.17, p = .10). The standardised regression weight for a direct effect of job satisfaction on work-related burnout was non significant (Beta = -.05, p = .87). However, a noteworthy finding was that for the combined model, the standardised regression weights for the direct paths between negative emotion suppression and work-related burnout, and emotion

work (companionship) and job satisfaction were non significant (Beta = .15 p = .26; Beta = .12 p = .11). This indicated that only the indirect paths (i.e., via the emotion regulation strategies) significantly contributed to variance in work-related burnout and job satisfaction, respectively. Interestingly, contrary to previously tested models, the relationship between feigned positive emotion expression and work-related burnout became significant in the combined model. In addition, the strength of the preliminary correlation effects between all three emotion labour variables and work-related burnout, and between companionship and job satisfaction, had altered once all variables were included in the model. Another interesting finding was the mediating effect of the 'emotional consonance' variable on the relationship between feigned positive emotion expression and job satisfaction. Overall, the stressors and their mediators in the final model explained 28.9 percent of the variance in nurse work-related burnout and 49.7 percent of the variance in nurse job satisfaction levels. Figure 4.20 displays the path analysis model for Model 6. χ^2/df for Model 5 and Model 6 were below 2, with the majority presenting χ2/df below 3 (Models 1- 4), indicating at least acceptable fit.

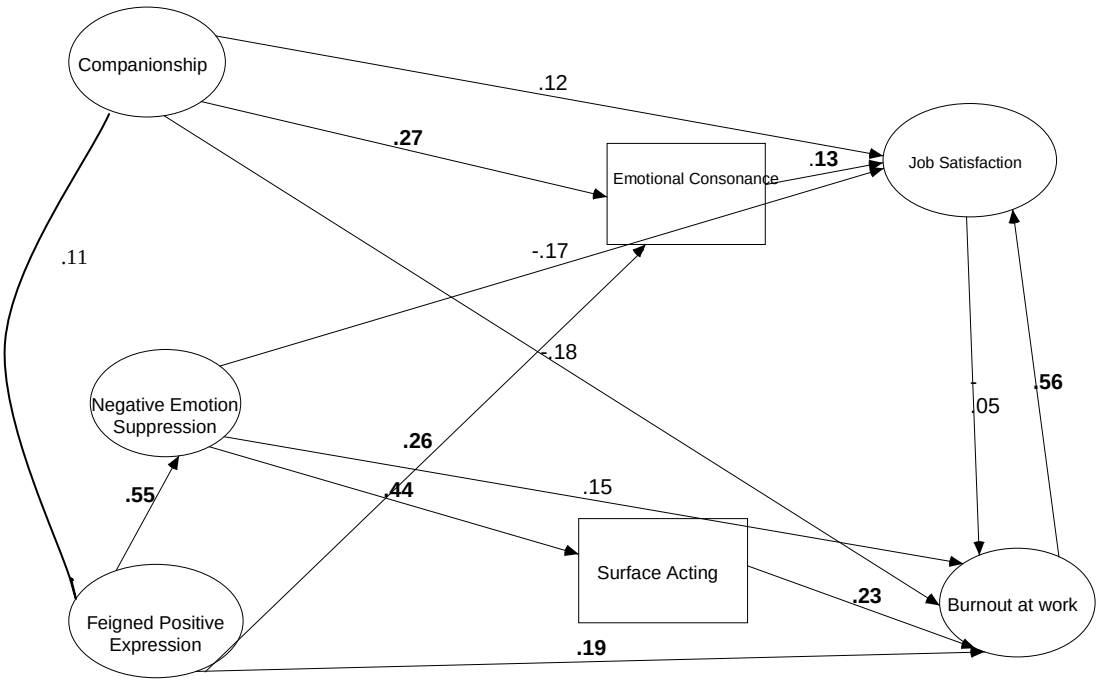

Figure 4.20. Path analysis representing Model 6.

Note: Standardised regression weight coefficients in bold were significant

As Engel, Moosbrugger and Muller (2003, p. 53) state, 'it should be clear that these rule of thumb cut-off criteria are quite arbitrary and should not be taken too seriously.'[10]

Due to the fact that not all of the variables in the dataset comprised the same number of cases, complete with no missing data, it was difficult to select modification indices in AMOS 5 for further model specification and development of a bitter fitting and parsimonious model. Therefore, it was not possible to precede with a model building and trimming process. The models identified and estimated were considered to be exploratory only.

Overall, partial support was obtained for Hypothesis 4a as negative emotion suppression, via surface acting, indirectly influenced work-related burnout scores in a positive direction. In effect, surface acting mediated the relationship between negative emotion suppression (as well as feigned positive emotion expression) and work-related burnout. There was also partial support for Hypothesis 4b (i.e., where the emotion work variable companionship was concerned), as companionship, via emotional consonance, indirectly influenced job satisfaction scores in a positive direction. The evidence therefore suggests that emotion consonance mediated the relationship between companionship and job satisfaction.

4.1.15 Factorial analyses of variance (Hypotheses 5a and 5b and 6)

Hypotheses 5a and 5b focused on the amount of emotion work and emotion labour performed by nurses with regard to nursing specialty area. It was suggested that the amount of performance of emotion work would vary depending on the nursing specialty area (Hypothesis 5a). For example, nurses working in oncology, where patient length of stay is of a relatively longer duration, may be more likely to perform particular forms of emotion work than critical care nurses, where patient length of stay is shorter. This was hypothesised based on development of rapport and emotional

[10] Fit indices may be affected by model misspecification, small-sample bias, violation of normality and independence and estimation-method effects. Therefore, it is always possible that a model may fit the data, although one or more fit measures may suggest bad fit (p. 53).

closeness over time considered to coincide with emotion work performance. Similarly, it was hypothesised that the performance of emotion labour (where a prerequisite personal relationship between nurse and patient is less likely to be expected), was likely to remain stable across the five specialty areas (Hypothesis 5b). These hypotheses were investigated via one-way analyses of variance of the mean difference between nursing specialty when emotion work or emotion labour variables were the outcome, as well as via the examination of reports from nurse managers with regard to patient length of stay within particular specialty areas (see section 3.2.2). Levene's test of equality of variances were non significant for all analysis of variance tests conducted.

Emotion work

Means and standard deviations of nursing specialty area where emotion work (companionship) was the outcome are displayed in Table 4.13. Borderline statistical significance was observed with regard to mean differences between nursing specialty groups for emotion work (companionship) [$F(4, 218)=2.51$, $p < .05$], although the significance level was not strong enough for Tukey's HSD conservative post hoc test to detect any differences between pairs of means. The Least Significant Difference (LSD) post hoc test detected a mean difference between oncology and orthopaedics groups (mean difference = 2.73, in favour of oncology) and cardiovascular and orthopaedics (mean difference = 2.81, in favour of cardiovascular). These results indicated that nurses within oncology and cardiovascular specialties performed more emotion work in the form of companionship than those in orthopaedics. No statistically significant differences were found among the means with respect to Help [$F(4, 213) < 1$, $p > .05$] or Regulation [$F(4, 210) < 1$, $p > .05$].

Table 4.13

Means and standard deviations for one way ANOVA of the effect of the type of Nursing Specialty on Emotion Work (Companionship, Help and Regulation)

Nursing Specialty	Companionship		Help		Regulation	
	N	M (SD)	N	M (SD)	N	M (SD)
Internal medicine	50	24.26 (5.22)	50	22.40 (6.11)	50	18.68 (6.65)
Oncology	33	25.88 (4.17)	33	22.67 (4.81)	32	16.72 (6.35)
Cardiovascular	51	25.96 (4.45)	47	22.68 (4.22)	47	17.55 (5.79)
Orthopaedics and Trauma	33	23.15 (5.14)	33	21.42 (5.25)	30	18.53 (6.39)
Critical Care	52	25.12 (3.97)	51	22.04 (5.10)	51	18.37 (6.65)
Total	219	24.94 (4.67)	214	22.27 (5.13)	210	18.03 (6.36)

Emotion labour

The means and standard deviations for emotion labour variables (*requirements and regulation strategies, feigned positive emotion expression and suppressing negative emotions*) are indicated in Table 4.14. No significant mean difference was found when emotion labour (requirements and regulation strategies) [$F(4, 228) < 1$, $p > .05$] and feigned positive emotion expression [$F(4, 228) < 1$, $p > .05$] were the outcomes, although there was a statistically significant difference at the $p < .05$ level in negative emotion suppression scores for the 5 groups [$F(4, 228) = 4.16$, $p < .05$].

A Tukey HSD post-hoc test revealed that there were significant mean differences between internal medical and cardiovascular nursing groups (mean difference = 1.37, in favour of internal medicine), cardiovascular and orthopaedic nurses (mean difference = 1.69, with orthopaedics holding the higher mean), and orthopaedics and critical care nurses (mean difference = 1.41, with the orthopaedic group holding the higher mean. This suggested nurses from the internal medicine

group performed more negative emotion suppression than cardiovascular nurses, while orthopaedic nurses performed more negative emotional suppression than both cardiovascular and critical care nurses.

Table 4.14

Means and standard deviations for One Way ANOVA of the effect of the type of Nursing Specialty on Emotion Labour (Requirements and Regulation Strategies, Feigned Positive Emotion Expression and Negative Emotion Suppression)

Nursing Specialty	Requirements & Regulation Strategies		Feigned Positive Emotion Expression		Negative Emotion Suppression	
	N	M (SD)	N	M (SD)	N	M (SD)
Internal medicine	49	14.53 (2.75)	50	21.68 (5.45)	49	9.65 (2.39)
Oncology	36	14.81 (2.59)	35	21.97 (4.09)	36	9.00 (2.01)
Cardiovascular	53	13.98 (2.83)	53	22.53 (3.34)	53	8.28 (2.30)
Orthopaedics and Trauma	34	14.79 (3.01)	34	22.76 (4.55)	34	9.97 (2.38)
Critical Care	57	14.32 (2.84)	57	21.46 (3.94)	57	8.56 (2.49)
Total	229	14.43 (2.80)	229	22.03 (4.30)	229	9.01 (2.40)

Eta squared (effect size) values calculated when emotion work variables were the outcomes were small: .05 for companionship, .01 for help, and .01 for regulation. For emotion labour, partial eta squared values were .01 for emotion labour (requirements and regulation strategies), .01 for feigned positive expression, and .07 for negative emotion suppression (a moderate effect).

4.1.16 Analyses of variance and structured interview data (Hypothesis 6)

One way between-groups analyses of variance of the impact of nursing specialty (predictor variable with five factors) on outcome variables stress, personal burnout, work-related burnout, patient-related burnout, job satisfaction and affective commitment were conducted to test Hypotheses 6. Homogeneity of variances for each group in question could be assured (via Levene's test for equality of variances) for all analyses, except when affective commitment was the outcome. This indicated

heterogeneity of variances. Initially, cases were deleted listwise at random in order to meet an equal number of cases, as is advised for conducting Analysis of Variance tests. However, as for ANOVAs where emotion work and emotion labour variables were the outcomes, ensuring that case numbers within each cell were equal did not have a substantial effect on the results. The original data numbers were therefore retained. The assumption of normality of the populations was satisfied, as the distributions of all predictor and outcome variables were normal. It is assumed that scores were randomly obtained from the population, although this cannot be verified due to anonymity of responses.

Stress

Table 4.15 indicates the means and standard deviations of the effect of nursing specialty on stress. Statistical significance was not reached [$F(4, 226)=1.75$, $p > .05$], and it was therefore concluded that with respect to stress, there was no difference between the five nursing specialty groups. Hypothesis 6 was therefore not supported.

Table 4.15

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Stress

Nursing Specialty	N	Stress M (SD)
Internal medicine	51	59.65 (15.77)
Oncology	36	61.92 (19.46)
Cardiovascular	51	63.33 (15.25)
Orthopaedics and Trauma	34	67.41 (15.59)
Critical Care	55	59.09 (15.29)
Total	227	61.86 (16.27)

Burnout

Mean and standard deviation values for the effect of nursing specialty on personal burnout, work-related burnout and patient-related burnout (testing Hypotheses 6) are

displayed in Tables 4.16, 4.17 and 4.18. There was a statistically significant difference at the p <.05 level in personal burnout scores for the 5 nursing specialty groups [F(4, 229)=3.02, p <.05], although no significant differences were found with respect to work-related or patient-related burnout [F(4, 229)=1.99, p >.05; F(4, 229)=1.35, p >.05]. Post hoc tests with no planned comparisons were conducted for the test involving personal burnout as the outcome. Tukey's Honestly Significant Dfference test (Tukey's HSD), the most accurate and powerful procedure to use when comparing means, was used to assess significance between pairs of means. Tukey's HSD reduces type 1 error at the expense of power, although still holds more power as a multiple pairwise comparison than other post hoc tests, such as the Dunn test when all means are compared. It is a conservative test and is most likely to accept the null hypothesis in favour of no difference (Klockars & Sax, 1986). The orthopaedics group was significantly different from the oncology group (mean difference = 2.79, p =.03, with orthopaedic nurses indicating higher personal burnout). Hypothesis 6 was therefore supported with respect to personal burnout, although not in relation to both work-related and patient-related burnout.

Table 4.16

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Personal Burnout

Nursing Specialty	N	Personal Burnout M (SD)
Internal medicine	51	20.88 (4.54)
Oncology	37	18.70 (3.67)
Cardiovascular	53	19.45 (4.31)
Orthopaedics and Trauma	34	21.50 (3.68)
Critical Care	55	19.71 (3.79)
Total	230	20.01 (4.13)

Table 4.17

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Work-related Burnout

Nursing Specialty	N	Work-related Burnout M (SD)
Internal medicine	51	23.03 (3.82)
Oncology	37	22.03 (3.72)
Cardiovascular	53	22.11 (4.02)
Orthopaedics and Trauma	34	24.15 (3.56)
Critical Care	55	22.69 (3.50)
Total	230	22.74 (3.77)

Table 4.18

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Patient-related Burnout

Nursing Specialty	N	Patient-related Burnout M (SD)
Internal medicine	51	15.10 (4.07)
Oncology	37	14.08 (4.66)
Cardiovascular	53	14.81 (4.67)
Orthopaedics and Trauma	34	16.29 (3.29)
Critical Care	55	15.27 (4.03)
Total	230	15.09 (4.17)

Job satisfaction

Table 4.19 displays the means and standard deviations for the effect of nursing specialty on job satisfaction. Significant differences between means were found

(F(4,230)=8.11, p <.001). Post hoc tests indicated significant mean differences between oncology and internal medicine (mean difference = 9.48, p =.02, with job satisfaction in favour of oncology), oncology and critical care (mean difference= 11.34, p=.002, in favour oncology), cardiovascular and orthopaedics (mean difference = 11.97, p=.001, in favour of cardiovascular), and orthopaedics and oncology (mean difference = 17.5, p=.000, in favour of oncology). Hypothesis 6 was thus confirmed.

Table 4.19

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Job Satisfaction

Nursing Specialty	N	Job Satisfaction M (SD)
Internal medicine	51	71.84 (14.12)
Oncology	37	81.32 (14.48)
Cardiovascular	54	75.80 (12.25)
Orthopaedics and Trauma	34	63.82 (15.81)
Critical Care	55	69.98 (14.14)
Total	216	72.66 (14.88)

Affective commitment and Self-reported absenteeism

The means and standard deviations for nursing specialty on Affective Commitment and Self-reported Absenteeism are listed in Tables 4.20 and 4.21.

No significant differences were found in the One Way ANOVA of the effect of nursing specialty on Affective Commitment [F(4, 215)=1.44, p >.05], or Self-reported Absenteeism [F(4, 202)= .77, p >.05], providing no support for Hypothesis 6.

Table 4.20

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Affective Commitment

Nursing Specialty	N	Affective Commitment M (SD)
Internal medicine	48	11.85 (2.33)
Oncology	32	11.88 (1.62)
Cardiovascular	48	11.85 (1.53)
Orthopaedics and Trauma	34	11.74 (2.15)
Critical Care	54	12.07 (2.81)
Total	231	11.89 (2.18)

Table 4.21

Means and standard deviations for One Way ANOVA of the effect of type of Nursing Specialty on Self-reported Absenteeism

Nursing Specialty	N	Self-reported Absenteeism M (SD)
Internal medicine	46	10.28 (10.46)
Oncology	31	15.00 (31.61)
Cardiovascular	47	9.53 (9.44)
Orthopaedics and Trauma	31	13.06 (20.73)
Critical Care	48	12.07 (2.81)
Total	203	11.04 (16.91)

The eta squared value when stress was the outcome was .03, (a small effect), whereas for all burnout outcomes, small effects of .05 for personal burnout, .03 for work-related burnout and .03 for patient-related burnout were observed. A large effect size of .13 was found for job satisfaction as the outcome, although a very small effect size of .003 was found for affective commitment as the outcome. This very small

effect size indicated a very low level of power. Partial eta squared for subjective absenteeism was .015.

Triangulation of quantitative data with structured interview data

Nursing managers from each of the five nursing specialties responded to structured questions with regard to the wards they managed (section 3.2.2).

Responses to Question 3:
What is the average length of stay of patients?

General/Internal medicine:

Average length of stay of patients was a few days to a week to up to 6 months. Types of patients vary from those finding temporary accommodation to those with infectious diseases. Length of stay would depend also on outside social support patients receive.

Cardiovascular:

Depending on the specialised ward, (i.e., vascular, renal, renal dialysis), patients stayed from 1 day to 70 days. Some wards were described as 'heavier' than others and therefore would require patients to stay on longer. A patient staying for two to six weeks was not uncommon, although the average length of stay was reported to be 5-7 days. In day procedure, patients would be seen three times a week depending on the time of the treatment. Treatments would last for about 5 hours. Dialysis patients may stay for 4-4.5 hours a day, while outpatients may stay for a half hour to two hours.

Oncology services:

Depending on the ward, the average length of stay for patients was 3-8 days.
Transplant patients may stay for approx two to four weeks, and some palliative patients can be admitted for several months. In day centres, patients can stay from a half hour to five hrs.

Orthopaedic services:

Five to eight days was the average length of stay of patients in this area. A range in the order of shortest to longest length of stay was not provided. However, it was reported that patients stayed 6 weeks or longer depending on type of fracture, etc.

Critical Care:

In the High Dependency Unit (HDU), patients stayed on average for 48 hours. Average length of stay of patients in the Intensive Care Unit (ICU) was 260 hours. The data collected on average patient length of stay is inconclusive. It was reported that many patients stayed in each section (either HDU or ICU) for up to a week (except for those in critical care), and in extreme cases, weeks or months at a time.

Given that the duration of patient length of stay across each nursing specialty appeared to be very similar, it was difficult to determine whether these results aligned with the results found from conducting Analyses of Variance tests. Therefore, with regard to the structured interview question, no specific conclusions were made with regard to whether more emotion labour or emotion work was performed in one specialty area by comparison to others. Only partial support was found for Hypothesis 5a, as only companionship scores differed between specialty areas, and no conclusions could be determined from the data of the structured interview question in relation to patient length of stay. In addition, negative emotion suppression scores did not remain stable across nursing specialties. Therefore Hypothesis 5b was not supported.

In order to avoid the risk of identifying the hospital sampled, the responses provided by nursing managers to the following questions will be reported in general terms where possible.

Responses to Question 1:

How many nursing staff are there on this ward, including enrolled, registered, full time, part time and causal nurses?

There were twenty-five to fifty total staff in each of the wards of the five specialty areas and 12 to 13 staff in outpatients and smaller specialised units.

Responses to Question 2:

How many nursing staff would typically be on shift during morning, late and night duty shifts?

Five to eight nurses were rostered in for a morning shift (or 12 for emergency), four to six on the late shift (or 16 for emergency) and two to four on night duty (10 in emergency). There may be up to 10 nurses on a ward at any given time, depending on the area. It was also noted that once a fortnight additional nurses would be rostered on to a ward in another specialty area from the emergency department in order to ease staff workload. This is referred to as 'take.' Nurses may generally be asked to relieve between areas should staff numbers be low.

Responses to Question 4:

What is the retention rate of nursing staff in the area?

The nursing managers of all specialty areas sampled reported a good retention rate of staff, except for the critical care area. Managers in the critical care area reported the turnover rate had increased over the last 6 months.

4.1.17 Thematic analysis of the final survey question (qualitative research results)

To supplement the quantitative data, the final section of the questionnaire contained the question: *"Is there anything else you would like to add regarding your work and how it affects you? If so please add your comments here."* The aim was to encourage nurses to indicate issues relevant to nursing work that were omitted from the survey, and for the researcher to then explore the alternative issues outlined. Responses to this question were collected, coded and analysed according to the principles of Thematic Analysis, including the recommendations of Boytzis (1998) and Braun & Clarke (2006). Thematic analysis is a qualitative approach that is tied to 'Grounded Theory', as introduced by Strauss (1987). Similar to 'Grounded Theory,' thematic analysis is used to identify, analyse and report patterns (themes)

within the data. It minimally organises and describes the data set in detail, while interpreting various aspects of the research topic (Boyatzis, 1998). Three alternative approaches may be applied to develop codes, which may represent an overarching theme. Boyatzis (1998) describes a code as containing a label, a description or definition, indicators, or flags, examples and exclusions, or special conditions. Approaches may be theory-driven, research-based or data driven. Due to the nature of approaches, potential pros and cons vary.

The theory-driven approach is associated with a preconceived theory, variables, and associations between variables. Due to pre-conceived theory, the likelihood of inter-rater reliability, as well as construct validity, will be low. In the research-based approach a code is developed and altered based on previous research. Developing a set of codes based on previous research may still lead to assumptions of biases in line with those of previous researchers. Limitations associated with pre-determined codes can also reduce inter-rater reliability due to different data sets on which the codes are based (the codes may have been originally developed based on a different set of data). However, the strength of this approach is the ability for a researcher to provide support and disconfirm the findings of previous research, adding to the knowledge base.

By contrast, in the data-driven approach codes are derived within the data. Creation of novel codes by the researcher from a novel data set may set limitations in terms of generalisability, though at the same time, is likely to increase inter-rater reliability should a second coder select similar codes from within the same data set (Denson, 2006). A data-driven approach was selected given that researchers did not preconceive particular additional aspects of nurse working life of which codes could be created. This was notwithstanding preconceived ideas of the researchers. The purpose of the final section of the questionnaire was therefore purely exploratory. A second coder was employed so that inter-rater reliability could be calculated. In terms of epistemology, an essentialist approach was taken, with semantic themes across the data set considered and clustered together.

Content of each coding category (Themes)

Seven themes emerged from the data. Some of the responses were coded twice, or repeated under two different themes. In this case, the second coder was alerted to the responses that may be coded under two distinct themes according to the analysis conducted by the primary coder. Theme 1 (depicted below) described lack of control over the work environment.

Theme 1:	Lack of control over the working environment
Description	Lack of control may be due to understaffing or unpredictable outcomes that may arise on the job Nurse perception of their work may differ depending on the nature of the work environment at any given time
Indicators/flags	Reduced staffing levels Work is never constant and is unpredictable Work can perpetuate either positive or negative feelings
Exclusions	The type of shiftwork and/or rostering

Eighty nine per cent of all responses were coded under Theme 1 by the primary coder. An example of a response coded under Theme 1 was:
"Work is never a constant, sometimes good, low stress, etc., other times very difficult." This response indicates that the experience of stress can vary depending on the temperamental nature of the working environment. Likewise, the following responses focus on how the nature of shifts and staffing levels may dramatically influence the working environment from day to day:
"*Work can be an environment of its own. It perpetuates positive or negative feelings often without intention. Shifts/rosters with short breaks between shifts can increase negative behaviour/feelings, increase fatigue, increase mistakes and decrease bounce back."*

"Most nurses, including myself, would be happier in the workplace if we were not working with reduced staffing levels due to nursing shortage. The hospital has been at 100-110% occupied (generally staffed for 80%)."

Theme 2 was labelled: 'Nursing specialties and feeling easily replaced'.

Theme 2:	Nursing specialties and feeling easily replaced
Description	
	Lack of appreciation for nursing specialties
	Nurses describe resentment with regard to feeling easily replaced within nursing specialties by nurses with less or no experience.
	Nurses describe feeling a lack of appreciation for their hard work
Indicators/flags	
	The conception by management that any nurse could work in any nurse specialty area if another nurse is ill
	Feeling like just a number
	Some specialty areas receive more recognition than others
Exclusions	
	Reference to non-committed workers
	Lack of support from management with respect to employee circumstances

The frequency of this theme found in the dataset by comparison to the other themes was (13%). An example of a response coded under this theme is:
"*Management do not recognise what we actually do on the wards – the intensive nursing required in* (name of specialisation omitted to protect participants). *Management believe any nurse can come here and work and replace a regular shift member who is off sick, even a first year graduate nurse who may have never seen an area like this before."*

The interference of shift work with non-work life and health was the third theme that emerged. The third theme was labelled: ‘Shift work and nurse health’.

Theme 3:	Shift work and nurse health
Description	The negative impact of rotational shift work, and increases in working hours on nurse non-work life
Indicators/flags	Experienced fatigue, poorer health, or increased stress linked with shiftwork Less quality time spent with their families
Exclusions	N/A

Theme 3 emerged in the dataset eighteen times. Examples of coded responses included:

“Family life and work influence each other dramatically. If one area is going wrong this impacts on the other,“ and “*I enjoy my work, but it does get demanding physically and mentally when you go home and are ‘over it.’ Shift work = decreased sleep, decreased social time. The growing decline in nursing staff takes its toll on demands of the working situation.”*

Theme 4 related to low social support, bullying, and other undesirable behaviour of management staff. The label was ‘Social support and management staff behaviour’.

Theme 4:	Social support and management staff behaviour
Description	Nurses described negative conduct towards co-workers Management practices are a concern; inadequate role modelling Management as well as co-workers are not able to completely sympathise with the circumstances of some staff members, particularly with respect to rostering arrangements. New staff members were also the most likely to be bullied by senior staff
Indicators/flags	Any mention of the factors in the description
Exclusions	N/A

Theme 4 emerged thirty times in the data set. Examples of responses coded under Theme 4 include:

"*The conduct of some nurses regarding their staff members, e.g., back stabling, nasty comments... some senior nurses are not being role models, e.g., in relation to behaviour towards others and friendliness."*

"*My work can be fulfilling and rewarding. We see different people through a difficult time in their lives. Sometimes they react well, sometimes they don't. It is the combined pressures of patients and management that is stressful. People need to feel supported and valued at work. After, I spend more time at work, or work-related activities than with my family."*

"Some of our staff on our ward are non-accepting of new staff that are bullied by senior staff members. Some staff members keep the new staff member isolated, e.g., won't talk to them, the get told off all the time til they break down in tears. Four good nurses have left the ward because of this problem."

'Incompetent and non-committed workers' was the theme label for Theme 5.

Theme 5:	Incompetent and non-committed workers
Description	Respondents focus on lack of morale and diligence, and how this may affect the well-being other co-workers
Indicators/flags	Any mention of the factors in the description
Exclusions	N/A

Theme 5 emerged four times. An example of a response coded under this theme is "*I feel particularly inadequate/stressed/angry/upset when working with incompetent and/or lazy co-workers. I feel much more calm when working with competent and calm people."*

Job satisfaction was the sixth theme.

Theme 6:	Job Satisfaction
Description	Nurses describe rewards from their nursing work, as well as stressors that may lead to job dissatisfaction. Features of nurse job dissatisfaction were not being able to provide patients with the care they need due to trivial, routine tasks, as well as placement of psychiatric patients in non-psychiatric wards. In addition, trained enrolled nurses reported dissatisfaction with promotional opportunities within their organisation.
Indicators/flags	Flagged stressors included mental health patients in non-psychiatric wards, routine or administration tasks, and enrolled versus registered nursing. Rewards comprised skills at work gained for use in personal life, relationships developed with colleagues and patients, feeling content with management staff, increased autonomy within particular nursing areas, and working hours considered to be family friendly.
Exclusions	N/A

Theme 6 emerged 10 times. Examples included:

Rewards (or resources) from nursing:

"We are fortunate to have excellent management and great colleagues. I believe the key to not burning out is maintaining a good balance between work, family, friends and general interests. I go to the gym 5x/week and find this very therapeutic. I can't imagine not being a nurse! I love work, not because of my colleagues, but also the patients with whom we develop great relationships. Of course there is a 'down side,' but work through these with colleagues and have a drink!"

"……I certainly go home some mornings and cry, but I wouldn't want to do any other sort of nursing. I think it teaches me to be more compassionate in my personal/home life."

Increased autonomy and control in particular specialty areas:

"Advantage of our clinical setting is the degree of autonomy nurses have."

"I feel very fortunate that my shifts allow me to work around my family. If I was on a rotating roster I would be unable to work. I love my job and where I work and I have the best CNC as a boss."

Stressors: Not being able to provide adequate care to patients:

"Stressors include mental health patients in non-psychiatric beds. I feel this is unfair to them as they don't receive care for needs specific to their problem."

Lack of promotional opportunities:

"As an enrolled nurse, I find there is nowhere to go if you don't want to do training for registered nursing. I feel as though people think you don't have a brain. Your study is the same – no levels for ENs."

The last theme was labelled 'Needs for nursing staff,' and was coded seventeen times.

Theme 7:	Needs for nursing staff
Description	Needs suggested included: (1) changes to the style of rostering to allow greater time spent with family; (2) improvements in staff resources (particularly for speciality areas that are not given as much attention as other areas); (3) increased payment for overtime; (4) increased staffing levels; (5) improvement in performance feedback from management staff to nursing staff; and (6) an increase in focus on the more rewarding aspects of nursing.
Indicators/flags	Any mention of the needs described above.
Exclusions	N/A

Examples of responses associated with nursing staff needs were:

"We know the work is emotionally and physically demanding; we know the organisation views us as a number; we know nursing is not good for our

social/home lives, but we keep doing it because we like it. So if someone would just do something about the bits which make is unappealing that would be fantastic!"

"CNCs concentrate on admin, etc., when actual patient care hasn't been completed. Patient care should be a priority! Lack of equipment, either broken or not enough to go around, lack of staff, staff overworked."

"I feel that the organisation could try harder to be 'family friendly' and have more flexible shifts/hours to suit people with family commitments, i.e., shorter shifts and varying start/finish times. There needs to be improved feedback/communication from senior staff/management regarding performance."

Inter-rater reliability

Along with intra-rater reliability that was performed on the data one week after the original analysis was performed, a second coder reviewed the data once coded and applied the same procedure, in order to argue for inter-rater reliability and validity (in a qualitative sense) of the results obtained. After the data were analysed, a kappa analysis was applied to demonstrate the level of inter-rater reliability obtained. The frequency of responses that aligned with each of the seven themes was divided into cells, of which observed and expected frequencies were calculated (Table 4.22). Overall totals were calculated by summing the values in the diagonals of the cells. The total expected frequency was then calculated by summing the (row x column/overall total) values for each of the themes. Finally, Cohen's Kappa statistic [Observed frequency – Expected frequency/ Total frequency- Expected frequency] was applied and the Kappa statistic obtained was 0.75. Generally a Kappa statistic greater than .70 is considered to be satisfactory. A value of 0.75 is deemed to have entered the range 'very good' according to Altman (1991).

Table 4.22

Inter-rater reliability, as assessed by Thematic Analysis conducted by a Primary and Second Coder

Primary Coder

Second coder	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Total
Theme 1	8	1	1			1	1	12
Theme 2		9	1	2			1	13
Theme 3		1	12	3		1		17
Theme 4				19	1			20
Theme 5				1	4	1		6
Theme 6						8	1	9
Theme 7			1				12	13
Total	8	11	15	25	5	11	15	90

Note: Sum of diagonal cells = 72.

CHAPTER FOUR
DISCUSSION OF STUDY ONE

4.2.1 Introduction

Although the emotional dimension of work has been studied previously in populations of this nature, there were a number of ways in which this study contributed to this existing literature. First, instead of studying risk factors and resources for occupational health among a pool of health care workers (containing a sub group of nurses), this study sampled Australian public hospital nurses in isolation from other occupational groups. Second, the study examined both *emotion labour* and *emotion work* performance in the same study so that the relative importance of the two constructs could be examined in the same statistical models. The second aspect of emotional expression, *emotion work* performance, was considered to be particularly relevant for healthcare workers who very likely provide 'invisible' emotional care as part of their role. The study also included a number of individual and environmental factors that have been previously neglected in the literature on occupational health, such as positive affect and work to family positive spillover. Another feature of this study was that it examined the role of nursing speciality. Given that certain nursing specialty areas may be either subject to more demands, such as emotional strain (Estryn-Behar, Nezet & Jasseron, 2004), or resources (Cronin-Stubbs and Rooks, 1985; Escot *et al.,* 2001; LeBlanc & Schafeli, 2003 Melchoir *et al.,* 1997; Tummers *et al.,* 2001; Tyler & Ellison, 1994; Van Servellen & Leake, 1993; Ullrich & Fitzgerald, 1990; Vicar, 2003) than other specialty areas, the study was therefore able to examine differences between *emotion labour* and *emotion work* performance in relation to different areas of nursing work. Finally, the study was one of the few that has applied the principles of the Conservation of Resources Theoretical framework to identify resources and demands relevant to the nursing profession for the purpose of proposing recommendations for improved performance of the nursing profession.

4.2.2 Emotion labour performance versus emotion work performance

Emotion labour performance was found to be distinct from *emotion work* performance. The relationships between emotion labour performance and individual

difference, workload and work environment factors, and the influence of e*motion labour* performance on individual and organisational level outcomes differed from those of *emotion work* performance. In particular, significant correlation and standard regression coefficients were generally stronger between *emotion labour* performance and psychological and outcome variables than between the same variables and *emotion work* performance.

Hypothesis 1 predicted that emotion work and emotion labour would each make a significant contribution to the individual and organisational outcomes when other individual and organisational level factors were controlled. With respect to emotion labour performance, the suppression or regulation of negative emotions contributed to poorer negative health and organisational outcomes. Specifically, *suppressing negative emotion* was a risk factor for depression, stress, personal burnout and job dissatisfaction, whereas the *emotion labour requirements and regulation strategies* component of emotion labour (Brotheridge & Lee, 2003) was linked to less positive affect, and more stress and work and patient-related burnout. These findings are consistent with previous research that has examined the relationship between emotion labour performance and stress (Mann & Cowburn, 2005), burnout (emotional exhaustion) (Abraham, 1998; Brotheridge & Grandey, 2002; Grandey, 2003; Heuven & Bakker, 2003; Schaubroeck Jones, 2000; Tschan, Rachat & Zapf, 2005; Zapf *et al.*, 2001) and job dissatisfaction (Erickson &Wharton, 1997; Grandey, 2003).

In relation to *emotion work* performance, Hypothesis 1 was only supported in the sense that the *companionship* and *help* components of emotion work significantly affected low negative affect, and the *regulation* component of emotion work significantly affected low job satisfaction. This implies that *emotion work* performance did not significantly predict the majority of outcomes when individual difference and environmental factors were controlled.

Nurses may not be performing high amounts of emotion work when compared with task-orientated care. A lack of opportunity for nurse-patient interaction (i.e., too many pressing cognitive or physical tasks that are given higher priority, short patient stay), or nurses otherwise feeling too overwhelmed to perform emotion work, may be

an explanation for the observation of greater amounts of *emotion labour* performance in lieu of *emotion work* (James, 1989, 1992; Corbin, 2008; Staden, 1998). Nurses may also either not feel confident that they have the skills to deal with emotions, or may fear that negative consequences could arise from high levels of emotional interaction with patients (Skilbeck & Payne, 2003). For example, high levels of emotional interaction, at the expense of the performance of task-orientated care, may be frowned upon by nursing management.

Nurses may utilise blocking behaviours in order to cope with patient-nurse interactions. For instance, nurses may make small talk about the physiological aspect of a patient's care in order to avoid confronting patients' emotions. In this case, more *emotion labour* will be performed than *emotion work*. The possibility that nurses may block emotions confirms Booth *et al.* (1996) who suggest that blocking of emotions decreases if nurses perceive that support from his/her direct supervisor is available is he/she needs it, and if his/her direct supervisor is concerned about his/her own welfare. The prospect that a decrease in blocking behaviours may occur with the introduction of resources is therefore noteworthy.

Finally, an explanation for the finding that emotion work performance was not a key risk factor for the majority of the outcomes measured is that nurse performance of emotion work may be underreported. If nurses perform emotion work automatically and authentically often, cognitive processing associated with emotion work may become automatically regulated and not apparent to the respondent in retrospect.

Differences between the effects of emotion work and emotion labour performance on the outcomes were also observed. The findings indicated that *emotion work* in the form of *regulation* was a risk factor for job dissatisfaction, and in one sense, has similar effects on negative consequences as *emotion labour* performance. However, the results also revealed that *emotion labour* performance in the form of *suppressing negative emotions* is a greater risk factor to job dissatisfaction than *emotion work* performance in the form of *regulation.* For example, whereas the Brotheridge and Lee (2003) *emotion labour* component of *requirements and regulation strategies* was a risk factor to patient-related burnout, Strazdins' (2000)

regulation component of *emotion work* did not significantly affect patient-related burnout.

In this study, it was also hypothesised (Hypothesis 2) that emotion labour would be more strongly related to the outcomes than was emotion work, on the basis that emotion labour performance would arise from a feeling of obligation to express particular emotions as part of the nursing role, whereas emotion work performance would be more strongly aligned with the voluntary performance of emotional expression. Voluntary emotion work performance is likely to be rewarding and satisfying for nurses, depending on the context (James, 1989, 1992; Strazdins, 2000). Hypothesis 2 was supported in that emotion labour was more strongly related to the outcomes than emotion work. *Emotion labour* performance explained more variance in negative outcomes as well as positive outcomes (in a negative direction) than *emotion work* performance. As referred to above, *emotion work* performance in the form of *regulation* was more strongly related to job satisfaction than *emotion labour*.

Given that emotion labour is proposed to be a job requirement and emotion work a voluntary form of emotional expression, it follows that emotion labour performance may act as a stressor, leading to more negative outcomes than emotion work performance. Hypothesis 3 predicted that performance of *emotion labour* would explain more variance in negative outcomes than performance of *emotion work*. With the exception of negative affect, the performance of *emotion labour* was associated more strongly with negative health outcomes, such as depression, stress, burnout (personal, work-related and patient-related) and low job satisfaction than when the same analyses were undertaken using *emotion work* performance.

Nurses may experience emotion labour performance as a stressor, whereas emotion work performance may be deemed to be a resource. In addition, significant bivariate associations found in this study indicate that if emotion work in the form of companionship was performed more often, outcomes such as job satisfaction and affective commitment would likely increase. This increase in resources and positive outcomes may in turn, offset the negative impact of negative outcomes.

Tests of mediation and moderation revealed that *emotion work* performance in the form of *companionship* played a key role in reducing the effects of demands (e.g., family to work conflict) on negative outcomes, and contributed to an increase in positive outcomes as a mediator or moderator. Emotion labour performance, and to some extent emotion work in the form of *regulation*, however, was associated with higher strain scores. However, the effect of suppressing negative emotions on the outcomes, in light of other psychosocial variables, was stronger than the effect of emotion work (*regulation*) performance. For instance, high *regulatio*n performance was not related to work-related burnout once a high level of trait anxiety was present, whereas *negative emotion suppression* continued to have an effect on work-related burnout when combined with a high level of trait anxiety.

A further interesting finding was that low *regulation* performance was associated with higher stress, personal and work-related burnout than high regulation performance. Consequently, although negative consequences may occur as a result of performing *regulation*, these consequences are likely to have less of a negative impact than the consequences that could result from performing emotion labour. In this sense, *regulation* performance may be a valuable alternative resource for nurses. If emotion work performance is found to be a resource for nurses, leading to the acquisition of positive outcomes and additional resources, or alternatively, a reduction in negative consequences, the Conservation of Resources Theory (COR) is able to account for this observation. In particular, the first and second principles of COR theory (and its corollaries) that relate to the 'Primacy of resource loss' and 'Resource investment' are relevant. Although 'resource loss is disproportionally more salient than resource gain' (Principle 1), '…those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain. Conversely, those with fewer resources are more vulnerable to resource loss and less capable of resource gain' (Corollary 1 of Principle 2) (Hobfoll, 2001a, pp 342-349).

In line with COR theory, the availability of resources may offset the negative effect of demands. Nurses may be continuously performing emotion labour and not receiving positive feedback in return for their efforts. According to COR theory, if individuals are able to replace or substitute a resource to achieve resource gain, negative outcomes may be less likely. Nurses may be able to use resource

replacement and substitution strategies to maintain resources. For instance, emotion work performance may be used as an attempt to replace lost resources (i.e., resource investment for further resource gain in the form of positive feedback or praise), or may be used as a suitably matched replacement in the event that another resource is unavailable. If resource replacement or substitution is not possible, however, links between emotion labour performance and negative consequences may be more salient.

Other principles of COR theory that may account for significant mediation or moderation effects found between psychosocial factors in predicting individual or organisational level outcomes are resource caravans and loss and gain spirals. The availability of a group of resources results in a greater chance that a suitably matched resource may be found that may either offset the effects of demands on negative outcomes, or may be used as an investment in order to gain additional resources. Psychosocial factors such as the availability of *emotion work* in the form of *companionship*, family to work positive spillover and social support (from supervisors) appeared to form a 'resource caravan'. For example, having positive family to work positive spillover or social support may increase the opportunity for nurses to feel confident in performing emotion work. In a similar vein, *emotion labour* mediated the associations between trait anxiety, work to family and family to work conflict, and depression, negative affect, and personal and work-related burnout, respectively. In this case, a loss and gain spiral may have formed, where low resource availability may result in long-term resource loss and psychological distress. In these cases, defensive responding could have followed.

In summary, *emotion work* performance (*companionship and regulation*) appears to operate as a resource. *Emotion labour* appears to operate as an organisational demand that could potentially lead to strain and poor health.

4.2.3 The indirect effect of emotion labour requirements on emotional exhaustion via emotion regulation strategies (Hypothesis 4a)

The study also examined whether regularly performing emotion labour requirements would be associated with the use of *surface acting* as a regulation strategy for

inhibiting emotional expressive behaviour. The more positive emotion expression one feigns, the greater the chance that negative emotions will be suppressed and this, in turn, may be related to *surface acting*. The findings indicate that *surface acting* (often associated with emotional dissonance) is an important mediator of the relationship between *suppressing negative emotions* and work-related burnout, confirming Brotheridge and Grandey's (2002) work. In addition, the links found between *feigned positive emotion expression* and work-related burnout, as well as between the regulation strategy *surface acting* and work-related burnout supports Brotheridge and Grandey's (2002) and Grandey's (2003) findings.

Emotional dissonance may also be greater when there is a requirement for a greater use of emotion labour performance (Abraham, 1998). Zapf and Holz (2006) found that emotional dissonance mediates the relationship between performance of emotion labour requirements and emotional exhaustion. Emotional dissonance was not measured in this study, although the findings of this research appear to support the strong research evidence that emotional dissonance is a key mediator in the relationship between emotion labour performance and health outcomes.

4.2.4 The indirect effect of emotion work performance in the forms of companionship, help and regulation on job satisfaction via the emotion labour strategy of deep acting (Hypothesis 4b)

It was also hypothesised (Hypothesis 4b) that *emotion work* performance would influence job satisfaction through the *emotion labour* strategy of *deep acting*. Unfortunately, this hypothesis could not be tested because the *deep acting* construct was not accurately measured. *Emotional consonance* (defined as the automatic experience of the emotions that one is expected to display) was used in place of *deep acting* as a result of the unanticipated re-wording of an item of the deep acting subscale. Although *help* and *regulation* were found to play a non-significant role in these relationships, a significant correlation was found between *companionship* and *emotion consonance*, consistent with the assumption that emotion work may be performed voluntarily while expressing authentic emotions. The model therefore suggests that nurses experience job satisfaction when performing *companionship* because they may actually experience the emotions they are required to express. The

finding that *emotion consonance* mediated the relationship between *companionship* and job satisfaction suggests that it is because *emotional consonance* is experienced that *companionship* relates to job satisfaction.

4.2.5 Comparisons of emotion labour and work across nursing specialty areas

It was postulated (Hypothesis 5a) that *emotion work* performance would vary depending on the nursing specialty area, such that nurses from specialty areas with greater nurse-patient interaction (i.e., where patients are likely to remain longer) would perform more *emotion work*. In support of this view, a significant difference in *companionship* performance between nursing specialty areas was observed between oncology and orthopaedics groups and between cardiovascular and orthopaedics groups. These results indicated that nurses within oncology and cardiovascular specialties performed more *emotion work* in the form of *companionship* than those in orthopaedics services. The results support conceptions of differences between nursing specialty areas that are based on previous research (Escot *et al.,* 2001; Estryn-Behar, Nezet & Jasseron, 2004; Le Blanc & Schaufeli; Melchoir *et al*., 1997; Tyler & Ellison, 1994). The findings from the present study findings suggest that oncology nurses had the second highest mean level of *companionship* performance, whereas cardiovascular nurses reported the highest mean of *companionship* performance. However, no significant difference in the mean level of *companionship* performance was found when cardiovascular and oncology nurses were formally compared.

Given that previous research suggests that work in oncology services comprise more emotional involvement than other nursing specialty areas (Corbin, 2008; Donnelly & Zevon, 1998; Escot *et al.,* 2001), it is not surprising that, apart from cardiovascular nurses, oncology nurses had the highest mean level of *companionship* performance. An explanation for these findings is that on the job training or modelling of emotion management skills may be learned within some specialty areas and not others. Areas where emotional care are more accepted, such as oncology and mental health nursing, may permit opportunity for nurses to learn and provide emotional care to patients in a supportive environment. In other areas, the contention may be that task oriented care are given higher priority, or is viewed to be more imperative to the provision of quality nursing care than other forms of care.

A lack of previous quantitative research in relation to the performance of emotional care between nursing specialty areas (Smith & Lorentzon, 2005), means that the findings of this study cannot be easily compared with the findings from other studies. However, there is some existing evidence that both emotion labour and emotion work performance are likely to comprise significant components of nursing work in cardiovascular, orthopaedic, medical and critical care services (see Smith, 1992; Smith, Barnes & Jennings, 1998; Smith & Gray, 2001). Nurses in these areas may need to deal with patient death, deliver bad news to relatives, as well as maintain closer interpersonal relationships with both patients and relatives of patients. It is likely, therefore, that they will be required to perform both *emotion labour* and *emotion work* (Stayt, 2009).

It was also predicted that *emotion labour* performance would not differ across specialty areas (Hypothesis 5b); however, this hypothesis was not supported. Nurses from general medicine and orthopaedic services were more likely to suppress negative emotion as part of their work role than nurses from cardiovascular and critical care areas. In addition, nurses who performed, on average, *more emotion work* than their counterparts (e.g., cardiovascular nurses) performed *less emotion labour* overall. Again, there are only a modest number of previous studies that have examined these differences in relation to speciality areas (Corbin, 2008; Gray. 2009; Gray & Smith, 2009; Smith & Gray, 2001; Smith & Lorentzon, 2005). Previous studies that have examined emotion labour have either observed a sample of nurses as part of a larger combined sample of occupational groups, or have failed to break down samples of nurses by speciality. The findings obtained here relating to cardiovascular and critical care areas are likely accounted for by using similar explanations to those above. Nursing staff in cardiovascular and critical care areas may be more likely to encounter patients with acute and life threatening conditions that elicit authentic emotions in nursing staff than nursing staff in orthopaedic or general medical areas (Stayt, 2009). Provided that nurses in these areas have sufficient opportunity to express authentic emotions on the job, they are therefore less likely to be placed in situations where they have to suppress or regulate their emotions (Corbin, 2008).

The role of specialty area was also examined in relation to specific work outcome variables including personal burnout and job satisfaction (Hypothesis 6).

Higher personal burnout scores were observed for the orthopaedic nursing group when compared to the oncology group. Taken together with the findings for the previous sections, these findings indicate that nurses who perform more companionship (oncology nurses) are probably less likely to experience personal burnout than those who suppress negative emotions (orthopaedic nurses). In addition, those nurses who typically performed more *emotion work (companionship)* were more likely to experience job satisfaction than those who typically *suppressed negative emotion*. The findings revealed that oncology nurses were more likely to report job satisfaction with their working environment than nurses in cardiovascular and orthopaedic service nurses.

4.2.6 Thematic analysis of qualitative findings

A number of salient findings emerged from the thematic analysis of the final question of the questionnaire that asked respondents to provide an overall assessment of the effects of nursing on general well-being. The theme 'Lack of control of the working environment' supports the established and accepted contention that control or autonomy over one's work is an influential resource on employee health (Johnson *et al.*, 1995; Johnson & Spector, 2007; Karasek, 1979; Lansbergis, 1998; Van Der Doef & Maes, 1999). A second theme, labelled 'Nursing specialties and feeling easily replaced' encapsulated the view that nurses felt vulnerable when they were asked to work in specialty areas that were unfamiliar, or where they felt that their skills were treated as so generic as to be easily replaceable. A third theme related to 'Shift work and nurse health' which summarised a number of views concerning the fatigue and physical strain caused by long working hours and rotating shifts. Such factors, as previously documented in Sparks *et al.*'s (1997) research, were felt to lead to greater nurse turnover and a greater risk of injury reports. This third theme was, in turn, linked to a fourth theme relating to 'Social support and behaviour of management staff'. Theme four, which was articulated by most respondents, emphasised the significant impact that management behaviour and social support availability can have on nurse stress and health. Such views were consistent with previous research conducted on availability of social support from supervisors and co-workers (Moore & Mellor, 2003; Winefield, Dollard & Winefield, 2000), trust in management (Harvey, Kelloway, Duncan-Leiper, 2003, and organisational justice (Willi-Peltola, Kivimaki, Elovainio, & Virtanen, 2007) on the health of health care workers.

Whilst the issue of bullying and aggression was not assessed in this study via a measurement scale, responses to the final survey question provided some insights into this issue. As previously documented in studies by Dann (1997), Farell, Bobrowski and Bobrowski (2006), Mayhew and Chappell (2003a, 2003b. 2003c) and Randle (2003), nurses reported being exposed to verbal and physical aggression and bullying from patients, as well as co-workers and supervisors. The nature of the nurse reports in this study confirms previous research on the existence of bullying, and suggest that bullying may illicit intention to leave, turnover and stress claims due to feelings of isolation, powerlessness, and lack of social support (Farrell *et al.,* 2006; Mayhew & Chappell, 2003a; Thomas, 2003).

A fifth theme, 'Incompetent and non-committed workers' incorporated nurses' contention that lack of teamwork, lack of morale, and diligence, contributing to job dissatisfaction and ill health, can lead to higher workloads for the committed and competent nurses. For the latter, nurse stress and job dissatisfaction could rise and result in negative individual and organisational level consequences for nursing wards as a whole. This finding is consistent with the work of Duffield and colleagues (Duffield & O'Brien-Pallas, 2002; Duffield & O'Brien-Pallas, 2003; Duffield *et al.*, 2007; O'Brien-Pallas, Duffield & Hayes, 2006). It is important to note that nurses may appear to be uncommitted or inefficient for a variety of reasons, including the experience of nurse burnout. It is therefore imperative that the concept and symptoms of nurse burnout be understood so that removal of support for nurses experiencing burnout, or the presence of anger and abuse projected toward co-workers within a team, based on misunderstanding, may be avoided.

The sixth theme, labelled 'Job satisfaction', which captured the positive and negative factors that influenced job satisfaction generally supported Parle's (2003) Best Practice Australia research. The study findings suggest that nurses were not satisfied with the amount of care they were able to provide to patients, due to trivial, routine tasks, such as administrative tasks. In addition, it was found that some nurses may experience stress and job dissatisfaction as a direct result of the inclusion of psychiatric nurses into the patient mix of non-psychiatric wards. This finding confirms the increased media attention associated with the issue in Australian capital

cities (Bildstein, 2004, May 21; James, 2004, January 17). Frustration was also expressed concerning the prospect of promotional opportunities for both enrolled and registered nurses, which is consistent with the work of Duffield and Franks (2002) and Duffield and O'Brien-Pallas (2003).

A final theme (Theme 7) related to nurses' suggestions concerning the ways in which their profession might be improved. These factors included: (1) changes to the style of rostering to allow greater time spent with family; (2) improvements in staff resources (particularly for speciality areas that are not given as much attention as other areas); (3) increased payment for overtime; (4) increased staffing levels; (5) improvement in performance feedback from management staff to nursing staff; and (6) an increase in focus on the more rewarding aspects of nursing, which could be forwarded to nursing management for review. As previous research suggests, regular employee participation in the decisions of management (Harris, 1989; Winefield, Dollard & Winefield, 2000), as well as the participation of employees in the collaborative process of targeting occupational stress (Cooper & Dewe, 2004; Dewe, & O'Driscoll, 2002; Griffiths, Randall, Santos & Cox, 2003; Dollard, Winefield & Winefield, 2003; Jordan, Gurr, Tinline, Giga, Faragher, & Cooper, 2003) contribute to occupational well being.

4.2.7 Methodological considerations

Although this study had a number of positive features, it is important nonetheless to be aware of some of its limitations. One limitation of the study is that direction of causality is difficult to establish with a cross-sectional design. Ideally, a longitudinal study may serve to reduce the problems associated with cross-sectional studies, including reverse causation and third variables (Zapf, Dormann & Frese, 1996). However, it was necessary to determine a baseline assessment for this sample of South Australian public hospital nurses before further research is conducted. Moreover, it was difficult to implement an alternative survey design given the controversial nature of the topic as well as limited access to nursing staff. If more access to nursing staff had been permitted, the study design may have included objective measures and/or peer-ratings of outcomes (i.e., actual turnover rates and workers compensation claims, or observation).

Another limitation of the study pertains to the alteration of Strazdins' (2000) Emotional Work Inventory (EWI). An extra rating scale to complement the original frequency scale was added so that the amount of emotion work performed both in the workplace and outside of work could be ascertained. However, nurses reported that the EWI was confusing to follow and cognitively demanding. In addition, some nurses indicated that they could not relate to the questions, either due to the wording of the items or due to the fact that some items did not fit with personal circumstances (i.e., some nurses may not have any family and/or may live alone). About 10-18% of the questionnaire packages were returned with the EWI section incomplete, or completed incorrectly, resulting in missing data. The observation of missing cases may have therefore resulted from the addition of items to the original EWI scale. Similarly, the unanticipated re-wording of one item of the emotion labour (requirements and regulation strategies) scale may have resulted in changes to both content validity and the factor structure of the emotion labour construct.

The length of the questionnaire package may have influenced the low response rate of the study. Although a non statistical significant difference was found between the study sample and the hospital nursing population, the influence of a possible response bias must nevertheless be considered. Moreover, it is possible that a majority of nurses who had completed the questionnaire package were satisfied with their work, and were therefore more likely to make more positive comments about nursing work. Alternatively, many nurses could have felt disillusioned and irate with their current working conditions, such that they were more likely present this opinion. Bias in either of these two directions may have affected the findings, the interpretation of the results, and any consequent recommendations, although it should be noted that low response rates are a common feature of health care research (Abbott & Sapsford, 1998; Badger & Werrett, 2004; May, 2001).

Lastly, asking nurse managers in person about staff retention may have introduced social desirability bias. As a result, the data obtained via this method may not be valid.

4.2.8 Future research

The questionnaire package could be shortened, given that low response rates and missing data may have directly resulted from a lengthy and cognitively demanding questionnaire package. Factor analyses as well as reliability analyses could be conducted in order to determine whether items and subscales from individual questionnaires may be removed to shorten the questionnaire package. Preference in variable selection could be given to neglected factors in previous occupational health or organisational psychology research, as well as potential resource factors. It is advisable that control variables be retained, in line with recommendations of previous research (Brief *et al.*, 1988; McCrae, 1990; Payne, 1988; Watson, Pennebaker & Folger, 1987).

Quantitative-based research that examines direct and indirect links between emotion work performance and outcomes is warranted. In addition, qualitative-based analyses that explore how nurses conceptualise emotion work (e.g., interviews, or use of qualitative vignettes), in conjunction with quantitative analyses, would create a richer dataset.

In this study, emotion labour performance was focused exclusively on the work domain. The observed weaker links between emotion work performance and outcomes that are associated with the work domain may have been due to a broader focus of the emotion work concept compared with the emotion labour concept. The exclusive focus of emotion work performance within the work domain in future research would enable a direct comparison of emotion labour and emotion work performance. An assessment of whether stronger relationships between emotion work performance and work-related outcomes are observed when emotion work performance is focused exclusively on the work domain could therefore be made in a subsequent study.

Furthermore, the companionship and regulation components of the emotion work performance construct constitute the expression and regulation of positive and negative emotions, respectively. Consequently, companionship was linked with positive outcomes, whereas regulation was associated with negative outcomes in this

study. By comparison, the help component of the emotion work construct did not appear to present strong, salient links with health outcomes when other individual difference and environmental factors were controlled. The help subscale could therefore be removed in future research with respect to hospital nurses.

Variables excluded in this study include bullying, turnover, and control or autonomy (with the exception of the subscale in the Nursing Stress Index labelled 'organisational support and involvement'). As stated above, bullying was excluded due to the political and controversial nature of the topic area, in addition to the proposed length of the questionnaire. However, it is essential that future research include autonomy in nursing research. Peterson (2003) suggests, 'for some sectors where claims are high (such as nursing), this reflects a lack of control and autonomy, particularly in the more privatised corporate sections of the industry' (p. 57). Autonomy may be a valuable resource for nurses in terms of the opportunity to interact with patients and perform emotion work, as well as in relation to the management of shift work and work-life balance. In effect, the presence or absence of nurse autonomy may fundamentally affect many aspects of working life. Examination of the relationship between autonomy and emotion labour and/or emotion work would assist in the exploration of the emotion-based concepts, as well as provide confirmation of the nature of autonomy as a resource for Australian public hospital nurses.

The extent to which individual difference and work environmental factors contribute to nurse turnover is another important consideration for future research. A limited number of available resources may predict turnover rates, in line with COR theory (Brotheridge & Lee, 2002; Grandey & Cropanzano, 1999; Hobfoll, 1998, 2002). Although nurse managers were queried with regard to turnover rates in this study, the majority stated that staff retention was reasonably high, despite nursing staff indicating otherwise when responding to the final question of the questionnaire package. However, strong research evidence in the form of statistically significant associations between individual difference and/or work environment factors and turnover may alert managers to the current dangers of a business model of healthcare on nurse turnover. Should access to objective data on nurse turnover be not readily available, researchers could explore intention to leave as an alternative.

A replication of the study in the context of private acute care hospitals would serve to validate the measures used in the current study. Moreover, it is unclear whether nurses working in South Australian private hospitals experience the same stressors, and have access to similar resources as South Australian public hospital nurses. Private hospital nurses are reputed to have higher levels of autonomy with regard to shiftwork schedule, as well as a higher number of part time and casual workers than the public hospital system. An increase in autonomy may therefore influence work environment factors, as well as consequences. South Australian private hospitals are also reputed to have higher patient to nurse ratio than public hospitals. This suggests that with the increase in patient load, there may be an increase in the performance of either emotion labour or emotion work. An increase in performance of *emotion labour* in lieu of *emotion work* appears to be likely, given the potential for reduced nurse to patient interaction in private hospitals.

CHAPTER FIVE
INTRODUCTION OF STUDY TWO

5.1.1 Introduction

Work stress is socially constructed in the media as an economically costly epidemic, caused by inappropriate working conditions, although interestingly, too often remedied at the individual level (Lewig & Dollard, 2001). Self-reported levels of psychological distress in samples of South Australian public and private sector workers have been reported to be equivalent (Dollard & Walsh, 1999). However, there are data to suggest that South Australian public sector employees are more likely to make a workers compensation claim, and often at an earlier stage of injury than private sector employees. This contradictory evidence suggests that private sector employees make three times as many claims as public sector employees in South Australia (Dollard & Walsh, 1999; Lewig & Dollard, 2001). Research also shows that the time lost and average cost per stress claim is higher for private sector employees (Dollard & Walsh, 1999). More research that is inclusive of the private sector employees is warranted.

Australian nurses working in the private sector may have greater opportunity to choose their hours of work than those working in the public sector. Sparks *et al.* (1997) argue that choice or individual control over hours of work or greater tolerance of a work schedule influences perceived stress levels in a negative direction, and may also act as a moderator in the relationship between working hours and health.

In line with COR Theory, autonomy is proposed to be a valuable resource to nursing staff, and may be advantageous for nursing staff in buffering job strain. Particular working arrangements may drive nursing staff to consider leaving their appointment or profession, or in the worst case, leave the nursing profession (O'Brien-Pallas, Duffield & Haynes, 2006). Greater awareness of types of working arrangements that lead to dissent among nursing staff may enable managers and employee assistance providers to develop interventions in aid of reducing nurse turnover. In relation to COR Theory, an intention to leave one's organisation or career is likely to be an indication of depleted resources, or impending threat and actual resource loss that may leave the employee with no alternative but to leave their job.

5.1.2 The second study

The second study is situated within the private healthcare context. The exploratory questionnaire used in the first study was shortened and amended. The amendments included the inclusion of the variables autonomy and intention to leave, as a result of qualitative and conversational feedback provided by nurses in the first study. For example, thematic analysis of the final question of the original questionnaire package revealed a theme that indicated the importance of rostering arrangements as a factor that is crucial to nurse job satisfaction and health. The first study results were used to inform amendments and deletions so as to accurately reflect hospital nursing work and its associated consequences. In addition, the current study design serves as a replication as well as an elucidation of the findings of first study. Consequently, a similar methodology was used (Sparks, Cooper, Fried & Shirom, 1997).

The emotion labour and emotion work constructs, as conceptualised in this thesis, are explored in greater depth in the current study via the amendment of existing segments of the questionnaire package. The sub-constructs of emotion labour and emotion work that directly or indirectly predicted individual health and organisational outcomes in the first study are retained. Qualitative-based research questions relating to emotion management are included, in order to explore further the manner in which private hospital nursing staff manage and regulate their emotions within their working environment.

Lastly, in light of the current debate and dissent between authors with regard to the conceptualisation and development of the burnout construct, the Copenhagen Burnout Inventory (CBI) is assessed for factorial validity and reliability among private hospital nurses via confirmatory factor analysis. This has never been done before among a single sample of South Australian private hospital nurses. Previous findings support the statistical validity of the scales (Kristensen *et al.,* 2005; Winwood & Winefield, 2004), although subsequent studies that support these findings are few. In addition, it would be informative to explore the factorial structure of the scales among an Australian hospital nurse sample. Winwood and Winefield (2004) assessed the validity of the scale among a sample of dentists, whereas Kristensen *et al.* (2005)

incorporate a sub-sample of nurses. However, this sample was not inclusive of Australian nurses.

Another reason to explore the factor structure of the CBI, in particular by applying confirmatory factor analysis, is that the three components of the CBI are nested within each other. Client-related burnout is nested within work-related burnout, which is in turn nested within the generic, personal burnout scale (Shirom, 2005). There is currently no psychometric support for the claim that the three life domains do not depend on each other in any way. At the same time, the second study examines potential domain-specific causes and consequences for each of the three burnout components in order to assess their independence.

It is appropriate to study each of the three CBI concepts, (i.e., personal, work-related and client-related burnout) in isolation in designing cross sectional studies where no clear casual connection can be made between the constructs, as could be achieved via longitudinal analysis. Further, a parsimonious and specific definition of burnout will enable researchers to study antecedents, correlates and consequences of the construct more clearly so that effective interventions may be applied to reduce negative individual and work environment factors. Likewise, although the phenomena depersonalisation, as a potential coping process, would be useful to study, the primary interest of the exploratory study is to identify the 'symptoms' of emotional exhaustion as a starting point.

As in the first study, the second study incorporates Kristensen *et al.'s* (2005) definition, and will compare average nurse burnout scores reported in previous studies. In addition, as in the first study, this study will investigate the antecedents and aetiology of burnout for the purpose of designing and implementing effective long-term interventions in future research. The application of COR theory to account for findings relating to emotional exhaustion is also suitable in the second study.

The second study extends the first study in the following ways:

- the second study, using an acute care private hospital nurse sample, aims to corroborate the findings of the primary study, for which a public hospital nurse sample was used;

- the original questionnaire package will be shortened and tailored to acute care hospital nurses, based on results of the first study, internal consistency and factor analyses tests;
- the emotion labour and emotion work measures will be altered in order to produce clearer measurement of these concepts. Brotheridge and Lee's (2003) emotion labour scale was removed (a general scale comprising frequency, intensity, variety and regulation strategy dimensions), and the emotion labour requirements scale (feigned positive emotion expression and negative emotion suppression) will be retained. The emotion work subscale help will also be removed, as this factor had a limited impact on the outcomes, by comparison to the other types of emotion work. The emotion work concept, subject to internal consistency and exploratory factor analysis tests, will be focused on the work domain only;
- the addition of qualitative data collection and analysis, in order to further explore the emotion labour and emotion work concepts, including how often each is performed by nursing staff and under what situational context; and
- the factorial structure of a widely-used scale to measure the burnout concept, the Copenhagen Burnout Inventory (CBI), will be tested via confirmatory factor analysis. The purpose of the test is to assess whether the scale could be applied to a sample of South Australian private hospital nurses (no previous study had tested this), as well as to validate the exploratory factor analysis of the scale in the first study.

5.1.3 Exploratory analysis and Hypotheses

The majority of hypotheses of the first study tested within the public hospital context will also be also applied in the second study. The second study seeks to extend the findings of the first study by examining the associations between emotion labour and emotion work performance and individual and organisational outcomes, in light of other common individual and work environment factors. These factors include nurse to patient ratio (assessment of workload), autonomy and intention to leave. This study also seeks to examine the factor structure of the CBI using confirmatory factor analysis. The exploratory analysis and hypotheses of the second study are as follows:

Exploratory analysis: *That emotion labour and emotion work, conceptualised as different constructs, will differ in their ability to predict health and organisational outcomes.* The individual and organisational outcomes studied include Positive Affect, Stress, Personal Burnout, Work-Related Burnout, Patient-related Burnout, Job Satisfaction, Affective Commitment, Intention to leave, Self-reported Absenteeism and Workers Compensation Claims.

Hypotheses 1: *That emotion work and emotion labour will each make a significant contribution to the studied individual and organisational outcomes when other individual and organisational level factors are controlled.* Autonomy was investigated as a work environment factor in the second study, whereas other factors measured in the first study (e.g., emotion labour: requirements and regulation strategies) were omitted.

Hypotheses 2: *That overall, emotion labour will be more strongly associated with the studied individual and organisational outcomes than emotion work.*

Hypothesis 3: *That performance of emotion labour will explain more variance in negative outcomes than performance of emotion work,* as shown in Table 5.1 below.

Table 5.1

Predicted Associations (and expected directions) between Emotion Labour and Emotion Work and Individual and Organisational Outcomes

Variable	Emotion Labour (Expected direction)	Emotion Work (Expected direction)
Positive Affect	-	+
Stress	+	-
Personal Burnout	+	-
Work-related Burnout	+	-
Patient-related Burnout	+	-
Job Satisfaction	-	+
Affective Commitment	-	+
Intention to leave	+	-
Self-reported Absenteeism	+	-
Self-reported Injury/ Workers Compensation Claims	+	-

Hypothesis 4: *That increased performance of emotion labour requirements such as feigned positive emotion expression and negative emotion suppression, will lead to work-related burnout.*

Hypothesis 5: *That the best fitting factorial structure of emotional exhaustion encompasses three independent and distinct constructs representing, personal, work-related and client-related exhaustion, instead of alternative models comprising one or two factors, respectively.*

CHAPTER FIVE
METHOD OF STUDY TWO

5.2.1 Participants

The participants were 176 nurses drawn from four private metropolitan hospitals in South Australia. Nurses from Hospital 1 were recruited from all specialty areas of the hospital, including surgery, orthopaedics, theatre, day procedures and recovery, medical, and gastrointestinal wards (see section 5.2.3). One nurse from the nursing administration area was also recruited. Nurses from Hospital 2 were recruited from peri-operative and general surgery, midwifery and maternity, intensive care, emergency and high dependency, day procedure/recovery, oncology, cardiac/angiography, and medical (including neurology) wards, while nurses from Hospital 3 were recruited from surgery, orthopaedics, theatre, maternity and midwifery, intensive care, day surgery and recovery, oncology, and cardiac/angiography units. Lastly, Hospital 4 nurses were recruited from peri-operative and general surgery, orthopaedics, theatre, intensive care, day procedure and recovery, and medical (including rehabilitation) areas.

5.2.2 Instrument

The instrument used in the second study, compared with the first, included the addition of two demographic questions, one psychosocial variable (autonomy), and one outcome variable (intention to leave). The autonomy and intention to leave scales comprised items derived from the literature, as well as items developed by the researcher.

Two outcome variables (negative affect and depression) and 4 predictor variables [emotion labour (requirements and regulation strategies), emotion work in the form of help, location of emotion work performance (i.e., at work, at home, or at both work and home), and adequacy of social support] from the first study were excluded. The amendments followed results obtained from internal reliability and factor analyses conducted on measures used in the public hospital nurse sample, in addition to theoretical reasoning. It was also the intention to shorten the previous questionnaire package for the second questionnaire study in order to increase the response rate.

Measures

Fourteen questionnaires, one question initiating overall comments, and three four-part question vignettes, were compiled.

Independent variable measures

Demographic variables

The demographics questionnaire contained 16 items and asked participants to indicate their age, gender, marital status, number of children, whether family members outside of their immediate family were living with them, working status, the type of shift they mainly worked over the past three months (an additional item developed for the second study), the number of hours generally worked during shifts, their educational background, current position, duration of employment at the current hospital, the functional unit/area the participant was working in at the time of the survey, their average caseload (nurse to patient ratio; an additional item developed for the second study), and the number of years in employment in their current position.

As in the first study, the participants were also asked to indicate the types of roles they regularly performed outside of work, including friend, extended family member, carer for aged parents, volunteer worker, spouse, and parent. The items were also developed subsequent to interactions with nursing staff from two private hospitals independent from the study, as well as with the hospital management of the four hospitals sampled.

Amended psychosocial measures

Emotion Work Inventory (EWI) (Strazdins, 2000): The scope of emotion work performance was reduced to working with patients only, as opposed to performance of emotion work within one's social network of close friends/family/workmates. It was anticipated that clarity with respect to the empirical associations between performance of emotion work at work and work-related outcomes (i.e., patient-related burnout) would be achieved in this process.

Additional psychosocial variables

The Autonomy Scale, adapted from Breaugh's (1985) work autonomy scale, and adapted by the researcher, contains five items. Three of the items derive from Breaugh's (1985) work method and work scheduling autonomy components. These items include *'I am able to choose the way to go about my job'* (work method autonomy) (this item was reversed to produce a balance between positive and negative wording of items), *'I have control over the scheduling of my work'* (work scheduling autonomy) and *'I have some control over the sequencing of my work activities (when I do what)'* (work scheduling autonomy). The other two items were developed by the researcher specifically for this nursing group, and included *'I do not have as much choice about how much time I spend interacting with patients as I would like'* and *'I am able to participate in the decision making of management'*. The scale ranged from 1 = 'strongly agree' to 5 = 'strongly disagree.' Internal reliability estimates for the scale were not reported in Breaugh's (1985) study.

The Job Satisfaction scale (Warr, Cook & Wall, 1979): The single item: *'Taking everything into consideration, how do you feel about your job as a whole?'* comprised a 1-7 rating scale of job satisfaction.

Affective commitment (Allen & Meyer, 1990): This subscale of 4 items, with a 5-point rating scale from 'strongly disagree' (1) to 'strongly agree' (5) was amended to include six items. The word hospital was also substituted for the word organisation. The additional items included *'I think that I could easily become as attached to another hospital as I am to this one'* and *'I really feel as if this hospital's problems are my own'*.

Intention to Leave items were adapted from Meyer, Allen and Smith (1993). The scale consisted of a 5-point rating scale ranging from 'never' (1) to 'always' (5) and 'very unlikely' (1) to 'very likely' (5). The items included *'How frequently have you thought about leaving nursing,' 'How likely is it that you would search for a job in another hospital,'* and '*How likely is it that you will leave the hospital in the next year?'*

Vignettes

Vignettes, comprising contexts in which emotion work, or alternatively, emotion labour could be performed appeared after the measurement scales in the questionnaire package. The first scenario depicted a situation in which a nurse could provide emotion work in the form of companionship, the second, a situation where emotion work in the form of regulation could be performed, given the right opportunity. The final scenario depicted a situation common to nursing staff, liaising with their nurse manager in relation to rostered shiftwork. This may also be a situation where either emotion labour or emotion work may be performed. These scenarios were coupled by questions that sought information as to under 1) what circumstances nurses would perform either emotion labour or emotion work; 2) to what extent they would control emotional expression; 3) what effect emotional expression, or alternatively emotional suppression may have on the well being of nursing staff, and finally; 4) where nurses learn the emotion management skills they may use on the job (e.g., life experience, formal training).

The qualitative four-part question vignettes were as follows:

Scenario 1:

One of the patients in your caseload is a 50 yr old woman with a chronic and terminal illness, and who has remained in your ward for over 2 weeks. She is pleasant, although is at times lonely when her family are not visiting. She seems to want to talk about some personal issues. In terms of expressing emotions while interacting with her:

Scenario 2:

One of the patients in your caseload is a 35 year old male with a previous alcohol addiction and a history of involving himself in risk taking behaviours. He is verbally abusive, and non-compliant, and his behaviour seems to be offend to other patients, medical and nursing staff, an issue that may need to be addressed. In terms of expressing emotions while interacting with him:

Scenario 3:

Your immediate nursing manager appears to be juggling rosters, staffing and budgets. In doing so, he/she does not seem to be taking into account your previous requests to be rostered on for particular shifts, or any other concerns that are raised. The ward you are working on also appears to be understaffed. Talking to the manager is difficult as he/she is always busy. In terms of expressing emotions while interacting with him/her:

The four questions that accompanied each scenario included:

1. What do you do, and what circumstances might affect what you do?
2. How much would you control expression of your own feelings?
3. How does it make you feel at the end of it?
4. Who taught you or showed you how to do this?

The final question initiated overall comments with regard to the topic, and was the same question that was posed in the first study. The data obtained from the question was to be analysed via thematic analysis.

Similar to the first study, the researcher asked each manager of the wards sampled a set of questions regarding nursing staff and patient statistics within each nursing specialty, on completion of data collection (see section 4.1.16). However, 3 additional questions asked included:

1. 'How many nursing staff in this nursing area are male?'
2. 'During the period of questionnaire distribution how many nurses on average may have been on leave or otherwise absent?'
3. 'Are there any factors that would have otherwise decreased the total number of questionnaires distributed to nurses, or the overall response rate?'

Nurse managers were either approached in person, via telephone, and/or via e-mail.

5.2.3 Procedure

The questionnaire was initially piloted with two independent nursing staff, each working at a private hospital that would not be sampled. The two nurses provided feedback about the clarity and relevance of the questionnaire items with respect to private hospital nurses, as well as functional differences between nurses working in public and private hospitals, respectively.

It was decided that one 'for profit' hospital and three 'not for profit' hospitals would be sampled. The hospitals chosen were also located throughout the city of Adelaide, South Australia. The researcher applied for ethical approval from both the University of Adelaide's Human Research Ethics Subcommittee in the School of Psychology (reference number: 05/101) and an external human research ethics committee linked to three out of the four hospitals. Internal human research ethical approval was provided by one of the four hospitals, as this hospital did not subscribe to a human research ethics committee. After ethical approval at each private hospital had been granted, approval from the Directors of Nursing of each of the four hospitals was sought.

Once approval to conduct the project was given from the Directors of Nursing, the Directors of Nursing were briefed about the aims and design of the study (they were each sent a copy of the proposed questionnaire package (Appendix 5.2), information sheet (Appendix 5.1) and flyer via fax. Each director of nursing was then invited to suggest appropriate amendments that could be made to the questionnaire. It was reiterated that participation in the study was voluntary, anonymous, that confidentiality would be maintained and that a feedback report would be provided to management and participants. The Directors of Nursing were then contacted to confirm the number of nursing staff working at each private hospital, and the procedure for questionnaire distribution was discussed. It was intended that questionnaire distribution would be coordinated to occur at the same time at each institution, if possible.

The Directors of Nursing from three out of four organisations preferred to enlist clinical managers to distribute questionnaire packages to their staff, rather than have the researcher distribute questionnaires throughout the hospital. Each hospital was given a return box, so that nursing staff had the choice to either place their completed questionnaire in the return box provided, or to send it back via post to the researcher. The remaining organisation (one of the three not for profit hospitals) had a higher number of nursing staff. At this organisation, the researcher was able to provide questionnaire packages to ward tea rooms of each nursing specialty area, as well as leave a box of questionnaires accompanied by a return box in the hospital cafeteria. Where possible, the researcher developed contacts with human resources and occupational health and safety management staff of the hospitals.

An advertisement of the project appeared in the tea rooms of the four hospital wards. Each questionnaire contained an information sheet and a return address reply paid envelope. The proposed duration of the study was two months. Nurses were invited to contact the researcher to talk about the project by telephone or e-mail.

Nurses were encouraged to fill out as much of the questionnaire as they could, leaving sections blank if time constraints were an issue, or if they felt that responding to particular questions involved disclosing overly personal information. Given the project's anonymity, there were limited ways of coding questionnaires so that the researchers could determine where the questionnaire had originated. Although hospital group logos were also provided at the front of questionnaires, three of the four hospitals belonged to the same group. To counter this problem, a question in the demographic section of the package asked nurses to indicate their organisation. Apart from the indication of nursing specialties, there was no other means of identifying which of the four hospitals was linked to a participant if he/she chose not to provide that information. Fortunately, each nurse provided this information such that this circumstance did not impact data analysis.

As previous, the researchers followed the recommendations of Dillman (2000) as much as possible in the follow up of initial questionnaire distribution. Due to the voluntary nature of participation and anonymity of respondents, it was not possible to trace which potential respondents had already replied and which had not, so that

follow up letters could be sent to those who had not yet replied two weeks later. However, when invited by nurse managers, regular presentations were given to nursing staff in tea rooms and larger scale staff meetings, in order to outline the project's aims and benefit to nursing staff.

Regular visits (at least every two weeks) were made to the tea rooms to monitor questionnaire completion (by checking the box that the questionnaires originally placed in to source completed questionnaires that were not returned via mail), gain feedback from available nursing staff in relation to the project, as well as to alter information on the flyers (e.g., to remind nurses of the project closing date). The majority of responses were received in the first two weeks of distribution. The researcher made attempts to encourage nursing staff where possible, and showed appreciation to those who had completed questionnaires in their own time. However, the researcher was careful not to approach nursing staff while working on the ward in a manner that may interfere, or compromise nursing work, as requested by the Director of Nursing. As a result, minimal contact was made with nursing staff outside of tea rooms and staff meetings. Raw data of nurse turnover over the past 12 months was unable to be collected from all 4 hospitals.

CHAPTER SIX
RESULTS OF STUDY TWO

6.1.1 Response rate and representativeness

The private hospital nurse sample comprised 176 nurses (168 females, 8 males) with a mean age of 40.67 years (SD = 9.32 years). Ten participants did not indicate their age. In addition to an overall total, the response rates of all four hospitals sampled were calculated in order to establish whether each of the four hospitals was adequately represented in the findings. Eighty-eight questionnaires were distributed to Hospital 1. A total of 222 questionnaires were distributed to Hospital 2. The total number of questionnaires provided to nurses from Hospitals 3 and 4 were 240 for Hospital 3 and 204 for Hospital 4, respectively. Thus, 754 questionnaires were distributed overall. One hundred and seventy six questionnaires were returned, yielding a response rate of 23%. For each hospital the response rates are shown in Table 6.1 Response rates varied from 20.83%-30.68%.

Table 6.1

Location of Respondents and Response Rates

Hospital	Size of population	Total survey returns	Percentage of total sample	Response Rate (%)
Hospital 1	88	27	15.3%	30.68%
Hospital 2	222	51	29.0%	23%
Hospital 3	240	50	28.4%	20.83%
Hospital 4	204	48	27.3%	23.53%
Total	754	176	100%	23%

As shown in the table, the nursing populations for three hospitals were of similar size, contributing a similar number of respondents to the total private hospital nurse sample.

Similar to study one, due to a response rate of less than 50%, the sample was compared with non-respondents with respect to gender of respondents using the same

test of sample representativeness. The number of male nurses working in each nursing area was located by asking nursing managers of the four hospitals to indicate how many male nursing staff work in the area that they manage [see section 5.2.2]. However, not all of the information for Hospital 2 could be obtained, due to access restrictions. Therefore, calculations using the alternative z ratio test were conducted for Hospitals 1, 3 and 4 only.

No significant differences were found in the proportion of males for the sample and nursing populations for Hospitals 1, 3 and 4 [Hospital 1: $\underline{z} = 0.11$, $\underline{p} > .05$; Hospital 3: $\underline{z} = 0.096$, $\underline{p} > .05$; Hospital 4: $\underline{z} = 1.74$, $\underline{p} < .05$]. This indicated that the samples of nurses obtained from data collection were representative of the nursing populations for Hospitals 1, 3 and 4.

6.1.2 Descriptive statistics

One hundred and forty eight nurses indicated the specialty area in which they worked. Table 6.2 displays the distribution of nurses within each nursing specialty area of each of the four hospitals. An inspection of the table reveals that the distribution of nursing staff across hospitals was evenly spread.

Table 6.2

Distribution of Nurses within each Nursing Specialty

Nursing Specialty	Hospital 1	Hospital 2	Hospital 3	Hospital 4
Surgery	1 (4%)	1 (2.1%)	4 (8.8%)	5 (11.9%)
Orthopaedics	1 (4%)	0	1 (2.2%)	4 (9.5%)
Theatre	1 (4%)	0	5 (11.1%)	10 (23.8%)
Day procedure/Recovery	5 (20%)	6 (12.8%)	4 (8.9%)	3 (7.1%)
Rehabilitation	0	0	0	3 (7.1%)
Medical (including neurology)	4 (16%)	4 (4.2%)	0	6 (14.3%)
Gastrointestinal	2 (8%)	0	0	0
Oncology	0	5 (10.6%)	1 (2.2%)	0
Cardiac/angiography	0	1 (2.1%)	6 (13.3%)	0
Emergency and High Dependency	0	9 (19.1%)	9 (20%)	6 (16.7%)
Maternity/Midwifery	0	10 (21.2%)	7 (15.6%)	0
Admin/Other	2 (8%)	0	0	2 (4.8%)
More than one area	6 (24%)	4 (8.5%)	8 (17.8%)	2 (4.8%)

As shown in Table 6.2, the distribution of nurses varied at each of the four hospitals. At Hospital 1, the majority of nursing staff were situated in Day Procedure/Recovery, at Hospital 2 Maternity/Midwifery had the highest number of nurses. Emergency and High Dependency had the highest number of nurses at Hospital 3, while Theatre nurses formed the majority a Hospital 4.

Demographic characteristics

Of the sample, ninety-six respondents (55.2%) were married, 25 (14.4%) were single, 31 (17.8%) had a partner, were living together or engaged, 18 (10.3%) were divorced/separated and 4 (2.3%) were widowed (N=174). Eighty-five nurses (48.6%) had no children under 18, 28 (16%) had one child, and 62 (35.4%) had 2 children or more. Of the participants that had children, one hundred and eight participants

(62.1%) had children living with them (N=174). Twenty-one (14.3%) participants had other immediate family members living with them.

Ninety-five nurses (54.7%) had completed hospital training as part of their educational background, 10 (5.6%) had gained a nursing qualification from TAFE, 78 (44.7%) had a university degree, and 40 (23%) had completed a graduate nursing program and 1 (0.6%) nurse indicated that he/she had other qualifications (e.g., diplomas) aside from the general nursing qualifications. Many respondents indicated that they had more than one qualification [given that some participants indicated that they have acquired more than one qualification, the results do not sum to 100%].

Eighty-eight participants (59%) worked full time, while 85 (49.1%) worked part time (N=173). Throughout the entire sample eighty-eight (50%) worked a regular 7-8 hour morning shift only, 64 (36.36%) nurses worked a regular 7-8 hour afternoon shift only, and 20 (11.36%) nurses worked night duty only. Seventeen (9.7%) nurses worked regular rotating morning, afternoon and night shifts, 1 (0.6%) nurse worked morning and evening shifts only, while 10 nurses (5.7%) worked shifts other than those listed above (N=163). Thirty-five (14.8%) nurses worked shifts that were not classed under any of the former categories.

Thirty-eight respondents (22.1%) held or had held a supervisory position such as head nurse of a ward, 26 (15.1%) respondents were enrolled nurses, while one hundred and eight (62.8%) participants were registered nurses at Level 1, years 1-10 (with level 2 representing management positions). Table 6.3 displays the number of registered nurses within each nursing position of Level 1 and above (N=172).

Table 6.3

Number of Registered nurses by Nursing Position

Number of nurses (%)	Nursing position
5 (2.9%)	Registered Nurse Level 1
9 (5.2%)	Registered Nurse Level 2
5 (2.9%)	Registered Nurse Level 3
7 (4.1%)	Registered Nurse Level 4
7 (4.1%)	Registered Nurse Level 5
4 (2.3)	Registered Nurse Level 6
2 (1.2%)	Registered Nurse Level 7
4 (2.3%)	Registered Nurse Level 8
53 (30.8%)	Registered Nurse Level 9
12 (7%)	Registered Nurse Level 10
25 (14.5%)	Clinical Nurse (Level 2)
3 (1.7%)	Clinical Nurse Consultant (CNC) (Level 3)
2 (1.2%)	Positions of a higher ranking than CNC

As can be seen from the Table 6.3, the majority of nursing staff sampled were registered nurses at Level 9.

One hundred and twelve (64%) respondents had been working for their organisation for less than 5 years, 40 (22.9%) held their current position for 5 to 10 years, and 23 (13.1%) had held their position for more than 10 years (N=175).
Eighty-nine nurses (50.9%) had held their current position for less than 5 years, 51 (29.1%) between 5-10 years, while 35 (20%) of participants had been working in their current position for more than 10 years.

Table 6.4 depicts the nurse to patient ratio or patient load within each nursing specialty.

Table 6.4

Average Nurse-Patient Ratios within each Nursing Specialty

Nursing Specialty	Number of respondents N	Nurse-Patient Ratio
Maternity/Midwifery	17	Typically 1:5 and as high as 1:10
Intensive Care Unit	32	Typically 1:1 or 1:2 and as high as 1:6
High Dependency Unit	13	Typically 1:4 and as high as 1:6
Orthopaedics	6	Typically 1:5 and as high as 1:12
Oncology	7	Typically 1:5 and as high as 1:12
Coronary care	4	Typically 1:5 and as high as 1:11
Theatre	10	Typically 1:1 and as high as 1:6
Acute medical	11	Typically 1:5 and as high as 1:10
Surgical	16	Typically 1:6 and as high as 1:10
Day Surgery	5	Typically 1:5 to 1:6
Recovery	12	Typically 1:2 to 1:3

As can be viewed from Table 6.4, although nurse to patient ratio varied between nursing specialty areas, the typical nurse-patient ratio was 1:1or 1:2 for the Intensive Care Unit, Theatre and Recovery, and between 1:4 and 1:6 for the remaining areas.

With respect to other types of demanding or time-consuming caring roles, one hundred and thirty-eight (78.9%) nurses indicated that they had a partner or spouse, 122 (69.71%) nurses were parents, 157 (89.71%) nurses maintained friendships, 40 (22.83%) cared for aged parents, 39 (22.29%) did volunteer work, and 33 (18.85%) maintained an emotionally demanding role to extended family members. Regarding the number of roles maintained, 34 (19.43%) maintained one role, sixty three (36%) maintained 2, 63 (36%) participated in 3 roles, 43 (24.57%) maintained 4 roles, 15 (8.57%) participated in 5 roles, and 1 (0.6 %) maintained one role [given that some participants indicated that they maintained more than one role, the results do not sum to 100%].

Autonomy

Scores for the autonomy scale (on a 5-point likert scale comprising the responses 1 = Strongly Disagree, 2 = Disagree, 3 = Neither, 4 = Agree and 5 = Strongly Agree) were inspected with respect to each hospital. For each hospital, the majority of respondents indicated that they agreed with the statement *'I do not have as much choice about how much time I spend interacting with patients as I would like'*: Eleven (44%) nurses working at Hospital 1 (N=25), 24 (48%) working at Hospital 2 (N=50), and 22 nurses (50%) at Hospitals 3 and 4, respectively (N=49 and N=44) indicated that they agreed with the statement.

Job satisfaction

For job satisfaction, measured on a 7-point likert scale (1 = I'm extremely dissatisfied, 2 = I'm very satisfied, 3 = I'm dissatisfied, 4 = I'm not sure, 5 = I'm moderately satisfied, 6 = I'm very satisfied, and 7 = I'm extremely satisfied), nearly half of private hospital nurses indicated that they were moderately satisfied with their work (79, 47%), 41 (24.4%) suggested they were very satisfied, and 17 (10.1%) indicated that they were dissatisfied. Six (3.6%) nurses indicated that they were extremely satisfied, while 3 (1.8%) nurses reported extreme dissatisfaction (N=169).

Intention to leave

The majority of respondents (66, 35.3%) indicated that they occasionally thought about leaving nursing (measured on a 5-point scale, where 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often and 5 = Always), with the next largest group suggesting that they often considered leaving nursing (44, 25.9%). The smallest group suggested that they always consider leaving nursing (13, 7.6%) (N=123). However, in terms of the likelihood of nurses leaving their hospital within a year, the majority of respondents indicated that it was not likely that they would leave their organisation (56, 32.7%), followed by those that suggested this prospect was very unlikely (44, 25.7%). The lowest number of participants suggested that it was very likely that they would leave their organisation (16, 9.4%) (N=116). For those that were considering leaving their organisation, the majority of respondents indicated they would likely search for a job in another hospital (53, 31%), as opposed to leaving the nursing professional

altogether, followed by those that indicated that this would not be likely (46, 26.9%). The third largest group suggested that searching for a job in another organisation (which may not be a hospital) was very likely (14, 8.2%) (N=113).

Absenteeism

Seventeen (10.1%) respondents were not absent from work in the last financial year period before the questionnaire was distributed (not including leave entitlements taken). Fifty-four (32.14%) nurses were absent from work for 1-3 working days, forty-three nurses (26%) were absent from 4-7 working days, 37 (22%) were absent for 8-14 days, 11 (6.5%) were absent for 15 days up to a month, and 6 (3.6%) were absent for 40 days or more (N=158).

Workers compensation claims

Fifty-four (32%) participants indicated that they had made a compensation claim before, while 115 (68%) suggested that they had never made a compensation claim (N=169). Of sixty-five reported injuries (37.14%), 54 (30.8%) nurses made compensation claims following injuries that included back (35, 30%), shoulder (8, 4.57%), neck (5, 2.86%), hand/finger (3, 1.71%), needle stick (3, 1.71%), knee/leg/ankle (3, 1.71%), wrist (1, .057%), and 'other injuries and accidents' (5, 2.86%). Eight males (5.1%) comprised the sample. Figure 6.1 depicts the number and type of injuries reported by nursing staff at the private hospital sampled.
As shown in Figure 6.1**,** no compensation claims were made for stress, or psychological injury. This observation is the main difference between this sample and the public hospital nurses sample.

Fisher's exact test was conducted in order to determine if gender had an influence on the type of injury, as the sample size available (N=49) was not large enough to be considered suitable for a Chi Square Independence test. A two-sided Fisher's exact test yielded a non-significant p-value result of 0.44. It was therefore confirmed that gender had no more influence on the type of injury reported than expected by chance.

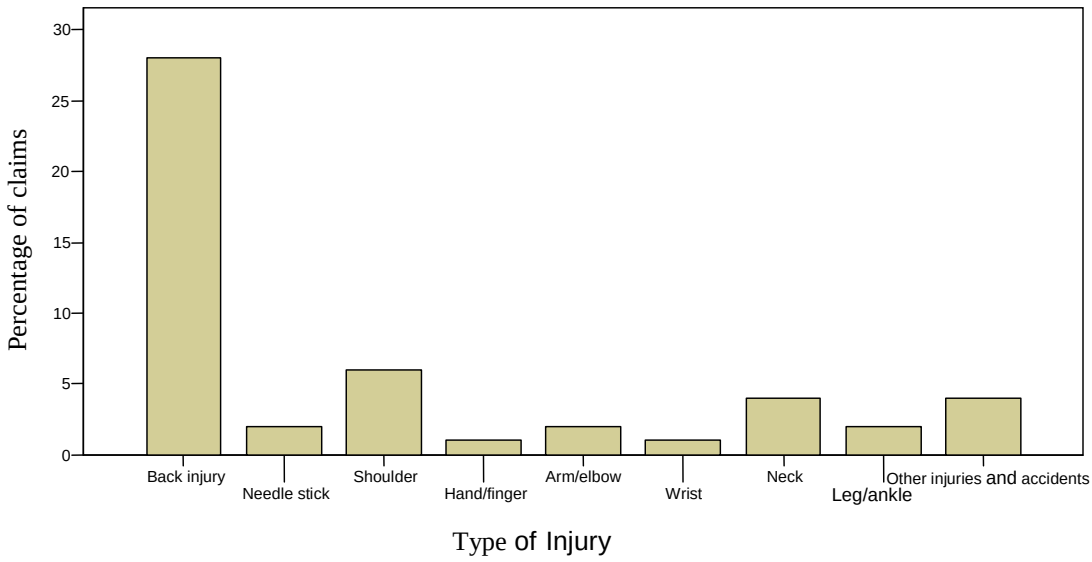

Figure 6.1. Number of Compensation Claims by Type of Injury.

Note: The 'other injuries and accidents' category comprised hip, buttock, eye socket injuries, rib muscle and other muscle strain, and head and fractured jaw accidents.

Statistical questions regarding nursing staff, patient mix and staff movements during the period of data collection

Nurse managers working in the private hospital system were asked the same four questions as the nursing managers working in the large public hospital, in addition to three questions prompted by research experience gained from the first study (section 6.2.2). Responses to the questions from each private hospital were analysed. For Hospital 1, twenty per cent of the sample comprised the total number of males, 25% of males who participated in the survey comprised the total male population for Hospital 2, thirty-six per cent of the Hospital 3 sample was male, while 12.5% of the sample represented the total male count for Hospital 4. Staff numbers for early, late and night duty shifts, retention rates, as well as statistics reported for patient length of stay were similar across nursing units and hospitals (i.e., length of stay ranged from 48 hours to 2 weeks). Exceptions included angiography and day procedure units, where length of stay could last a few hours, and coronary care units, where length of stay could extend to one month or more. Absenteeism of nurses during the period of

data collection was reported by nurse managers to be a reflection of changes taking place during a nursing unit, or the personal circumstances of each nurse. The most common responses provided in response to the possibly of low response rates were nurse apathy, over-sampling of nurses, as well as hectic schedules surrounding nursing staff.

All of the variables studied had missing data of 5% or less apart from the variable Self-reported Absenteeism, which had the highest percentage of missing data with 8%. The number of low/high extremes (outside 3 standard deviations) was low for all variables. Outstanding outliers outside 3 standard deviations of the mean of each variable were removed from the analyses (Tabachnick & Fidell, 2001).

The Shapiro-Wilk normality test results were significant for many of the variables except for the variables stress, work to family conflict, family to work conflict, work-related burnout and positive affect, indicating some deviation from normality. However, as in the previous study, inspection of the detrended normal Q-Q plot for each of the variables indicated that the distributions were close enough to be treated as normal distributions due to values that did not extend beyond 1 standard deviation above the mean (the majority did not extend beyond 0.5 standard deviations from the mean). In addition, there was a general cluster of points in a horizontal band around zero with no particular pattern. It could be visibly observed from plots of normality and histograms that the distributions were within the required standard deviation range indicating normality. It was therefore decided that the data would not be transformed to conform to a normal distribution in order to meet the assumption requirements for the majority of statistical tests that would be conducted. Transforming variable distributions may have introduced biases, or otherwise may have removed information in the data, by altering the true nature of the dataset by removing evidence of the natural processes operating in relation to the particular sample.

As in the previous study, data were also examined for skew. However, the majority of variables were not highly skewed in a particular direction, and were left unmodified. Absenteeism revealed a skewness value of 5.07, although the researcher

did not choose to modify this variable as it was expected that the majority of responses would be within a low range, with some respondents indicating much higher rates of absenteeism than others due to particular personal circumstances.

Tables 6.5 and 6.6 display the means, standard deviations, range of values, missing data and internal reliabilities of the psychosocial predictor variables and the outcome variables, respectively. Comparisons of mean scores of the predictor and outcome variables in the second study with the mean scores observed in previous research, as well as the first study, is shown in Appendix 6.2.

Table 6.5

Means, Standard Deviations, Ranges, Missing Data and Internal Reliabilities of the Psychosocial Variables studied

Variable	Mean M	Standard Deviation SD	Lowest value	Highest value	Missing data	Internal Reliability
Psychosocial variables						
Trait Anxiety	19.9	10.1	1	56	9	0.89
Social Support (Supervisor)	11.3	4.0	5	20	8	0.95
Social Support (Colleagues)	13.1	3.3	5	20	7	0.89
Social Support (Friends/Family)	16.7	4.4	7	24	6	0.90
Work-Family Conflict	27.8	6.0	8	40	2	0.87
Family-Work Conflict	18.3	5.1	1	32	2	0.80
Work Family Positive Spillover	38.3	7.3	7	55	2	0.90
Family-Work Positive Spillover	39.7	6.7	10	55	2	0.89
Autonomy	15.4	2.4	8	21	7	0.68
Emotion Labour (Feigned Positive Emotion Expression)	9.6	2.9	2	18	5	0.73
Emotion labour (Negative Emotion Suppression)	10.60	3.3	1	24	5	0.81
Emotion Work (Companionship)	24.4	5.8	3	42	2	0.83
Emotion Work (Regulation)	12.5	5.1	2	36	4	0.89

Table 6.6

Means, Standard Deviations, Ranges, Missing Data and Internal Reliabilities of the Outcome Variables studied

Variable	Mean M	Standard Deviation SD	Lowest Value	Highest Value	Missing Data	Internal Reliability
Outcome variables						
Positive Affect	30.9	8.0	5	50	8	0.89
Stress	32.9	8.5	15	55	2	0.85
Burnout (Personal)	19.4	3.8	9	30	2	0.87
Burnout (Work)	18.8	4.1	9	30	2	0.85
Burnout (Client)	14.1	4.6	6	36	4	0.89
Affective commitment	16.9	4.3	7	28	4	0.68
Job Satisfaction	4.8	1.3	1	7	8	N/A
Intention to Leave	8.5	2.8	2	10	5	0.67
Absenteeism	11.0	16.9	0	122	8	N/A
Compensation Claim			1	2	7	N/A

6.1.3 Exploratory factor analyses

The factor structures of relatively novel constructs, or measures that had been validated by few authors, were analysed. Principal axis factoring, with a varimax rotation was selected via the SPSS program to extract factors. As in the previous study, principal axis factoring with an oblique rotation was also performed on each of the scales for comparison. In terms of factor structure and proportions of variance, similar results to principal component analyses were found. All single and cross loadings factor loadings above .30 were considered. With respect to each measure, the sample size limitation of 150+ was achieved as well as factorability of the correlation matrices. The Kaiser-Meyer-Olkin value was above .6 for all scales (.78 to .92), also indicating factorability of the correlation matrix. Bartlett's test of sphericity was

statistically significant for all scales. Many correlation coefficients between variables were .3 or above (with few coefficients of .20 to .30). Missing data and outliers were deleted listwise.

Work to family positive spillover

Similar to the first study, two factors were extracted, as indicated by a total variance of 49.94% (Eigen value = 5.49) for Factor 1 and 20.81% (Eigen value = 2.29) for Factor 2. Factor 1 also represented items 13-19 that included a combined grouping of Hammer, Hanson and Colton's (2006) factors: 'Instrumental' and 'Values', while Factor 2 appeared to represent items 9-12, following the Hammer, Hanson and Colton's 'Affective' label (Appendix 5.2). Eigen values and total variance explained after rotation of two components was 4.58 (total variance = 41.67%) for Factor 1 and 3.20 (total variance = 29.07%) for Factor 2. When 3 factors were extracted, in line with Hammer, Hanson and Colton's (2006) study, items 17-20 loaded on a single factor, although the Eigen value for the third factor did not reach 1. All loadings were above .72.

Family to work positive spillover

Unlike the first study, 3 factors were extracted when the family to work positive spillover subscale was factor analysed. Items 20 to 23 represented Hanson, Hammer and Colton's (2006) 'affective' factor, items 24-27 represented the factor labelled 'Instrumental', while item 28-30 characterised 'Values'. The Eigen values and total variance explained by Factor 1 were 5.13 (total variance = 46.69%), 2.14 (total variance = 19.44%) for Factor 2, and 1.21 (total variance = 10.98%) for Factor 3. On rotation, total variance was 3.15 (total variance = 28.62%) for Factor 1, 2.88 (total variance = 26.20%) for Factor 2 and 2.45 (total variance = 22.28%) for Factor 3. All loadings were above .73.

Emotion labour (feigned positive emotion expression and suppression of negative emotion)

Two factors were extracted when emotion labour (feigned positive emotion expression and negative emotion suppression) subscales were factor analysed. The first factor [total variance explained = 47.86%, Eigen value = 3.35] comprised the

suppression of negative emotional expression items from the scale, and the second factor [total variance explained = 19.14%, Eigen value = 1.34] represented the expression of feigned positive emotion expression items (Appendix 5.2). Cross loadings on Factors 1 (.44) and 2 (.59) for item 1 (positive emotion labour) and Factors 1 (.55) and 2 (.30) for item 4 (negative emotion suppression) were observed. The higher factor loading for each of the items was accepted in preference to a lower loading. After rotation, total variance explained was 38.84% (Eigen value = 2.74) for Factor 1 and 28.15% (Eigen value = 1.97) for Factor 2.

Emotion work (companionship and regulation)

One factor emerged from analysis of the companionship and regulation subscales, in line with Strazdins' (2000) research based on the Emotion Work Inventory, and the exploratory analysis results of the first study (section 5.1.4). When principal axis factoring with a varimax rotation was selected, total variance explained for the companionship subscale was 44% (Eigen value = 3.09) and 58.88% (Eigen value = 3.53) for regulation. Principal axis factoring with oblimin rotation, as selected in Strazdins' (2000) study, revealed similar structural results for both emotion work components.

Stress

Initial Eigen values indicated that there were two factors [4.24 (total variance = 32.59%) for Factor 1, 1.59 (total variance = 12.19%) for Factor 2]. As in the first study, the second factor characterised the Nursing Stress Index (NSI) factor 'dealing with patients and relatives'. Whilst the remaining items comprised a combination of the factors 'Workload 1' and 'Workload 2', items 1 and 2 loaded on the NSI factor 'Workload 2' and items 3 and 4 clearly loaded on 'Workload 1' (Appendix 5.2). Cross loadings were observed for items 5, 7, 10 and 13. Item 5 (.60 Factor 1 and .39 Factor 2), loaded more heavily on the 'Workload 1' component of Factor 1. Item 7 loaded more heavily on Factor 2 (.38 Factor 1 and .49 Factor 2), item 10 loaded slightly more heavily on Factor 2 (.35 Factor 1, .37 Factor 2), while item 13 loaded slightly more heavily on Factor 2 (.44 Factor 1 and .43 Factor 2).

Personal, work-related and client-related burnout

Personal, work and patient-related burnout scales were examined as part of a confirmatory factor analysis of the overall Copenhagen Burnout Inventory measure (Appendix 5.2).[11]

In addition to the evidence reported below, the factor analyses provided evidence in favour of the emotion labour and emotion work constructs as unique and distinct, leading to different health and organisational consequences. This was expected as a result of an exploratory analysis of the constructs.

Item analysis

As in the first study, internal consistency was observed as an inspection of item-item correlations revealed moderate to strong significant correlations with all other items representing the same construct. Items were also strongly correlated with the total scale score, although not so strongly correlated that they would not be considered individual items in their own right (r was not > .85).

Correlations

As in the first study, before any statistical analyses involving multiple variables were to be carried out (for the purpose of investigating Hypotheses 1, 2, 3 and 4), correlations between pairs of variables were examined (Table 6.6). The inter-correlations between psychosocial variables indicated weak to medium correlations, whereas inter-correlations between predictor and dependent measures were medium to strong. However, as in the first study, the associations were not large enough for concern to be suspected with regard to independence of measures (Moss, 1986; Dollard, 1996).

[11] Conducting both an exploratory and confirmatory factor analysis on the same measure within the same dataset is not recommended, and may result in the researcher merely fitting the data without testing of theoretical constructs (DeCoster, 1998).

Table 6.7
Bivariate Correlations of Measured Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Individual difference variables														
1. Gender	1													
2. Age	-.08	1												
3. Working status	.16*	.10	1											
4. Trait Anxiety	.09	.05	-.00	1										
Psychosocial variables														
5. Social Support (Supervisors)	.07	-.08	.04	-.20*	1									
6. Social Support (Colleagues)	.09	-.09	.02	-.33**	.58**	1								
7. Social Support (Friends/Family)	.06	-.14	.00	-.32**	.25**	.42**	1							
8. Work-Family Conflict	.23**	.06	.00	.43**	-.16*	-.12	-.13	1						
9. Family-Work Conflict	.18*	-.00	.16*	.30**	-.09	-.00	-.18*	.41**	1					
10. Work-Family Positive Spillover	.20**	.02	-.07	.03	.20**	.26**	-.02	.10	.27**	1				
11. Family-Work Positive Spillover	.18*	-.02	-.05	.07	.13	.12	.10	-.02	.21**	.55**	1			
12. Autonomy	-.03	.08	.01	-.27**	.28**	.22**	.08	-.11	-.14	.14	.11	1		
13. Emotion Labour (Feigned Positive Emotion Expression)	.04	-.02	-.11	.18*	-.04	.01	-.13	.15*	.03	.14	.03	-.12	1	
14. Emotion Labour (Negative Emotion Suppression)	.14	.09	-.03	.35**	-.15	-.16*	-.10	.34**	.23**	.12	.05	-.11	.42**	1
15. Emotion Work (Companionship)	.01	.15*	.09	-.10	.22**	.17*	.00	-.03	-.02	.15	.18*	.16*	.24**	.13
16. Emotion Work (Regulation)	-.05	.03	.03	.04	.21**	.27**	-.03	.02	.11	.13	.09	.22**	.16*	.26**
Dependent variables														
17. Positive Affect	-.09	.05	-.08	-.38**	.28**	.24**	.28**	-.18*	-.24**	-.01	.07	.19*	-.04	.12
18. Stress/Strain	.08	-.01	-.03	.39**	-.06	-.04	-.12	.40**	.20**	.14	.06	.03	.18*	.40**
19. Burnout (Personal)	.19*	.05	-.01	.62**	-.18*	-.24**	-.24**	.65**	.33**	.11	.01	-.10	.12	.39**
20. Burnout (Work-related)	.21**	.00	-.09	.51**	-.19*	-.18*	-.14	.67**	.31**	.09	-.04	-.04	.19*	.44*
21. Burnout (Patient-related)	.07	-.00	-.05	.42**	-.08	-.10	-.23**	.28**	.28**	-.01	-.12	-.07	.08	.22**
22. Job Satisfaction	-.08	.02	.03	-.41**	.30**	.28**	.25**	-.40**	-.25**	.13	.19*	.13	-.11	-.31**
23. Affective Commitment	-.04	.11	-.04	-.29**	.37**	.24**	.15*	-.20**	-.17*	.08	.07	.30**	-.11	-.19*
24. Intention to Leave	.02	-.09	-.13	.32**	-.20*	-.17*	-.05	.33**	.32**	.13	-.06	-.14	.07	.34**
25. Self-reported Absenteeism	.09	-.10	.00	.13	-.07	.08	.09	.07	.11	-.01	-.01	-.06	.11	.10
26. Self-reported Injury/Workers Compensation Claim	.08	.20*	.02	.08	-.06	-.03	-.15	.01	-.08	.07	.03	.01	-.12	.05

Table 6.7
Bivariate Correlations of Measured Variables

Measure	15	16	17	18	19	20	21	22	23	24	25	26
Psychosocial variables												
15. Emotion Work (Companionship)	1											
16. Emotion Work (Regulation)	.55**	1										
Dependent variables												
17. Positive Affect	.17*	.04	1									
18. Stress/Strain	-.04	.12	-.16*	1								
19. Burnout (Personal)	-.04	.04	-.35**	.46**	1							
20. Burnout (Work-related)	-.04	.11	-.28**	.52**	.80**	1						
21. Burnout (Patient-related)	-.24**	-.01	-.32**	.46**	.47**	.54**	1					
22. Job Satisfaction	.07	-.07	.36**	-.27**	-.42**	-.53**	.45**	1				
23. Affective Commitment	.10	.03	.27**	-.13	-.20**	-.22**	-.22**	.34**	1			
24. Intention to Leave	-.17*	-.02	-.30**	.36**	.39**	.44**	.45**	-.52**	-.29**	1		
25. Self-reported Absenteeism	-.07	.00	-.07	-.02	.13	.09	-.05	-.14	-.06	.06	1	
26. Self-reported Injury/Workers Compensation Claims	-.06	.07	-.10	-.06	.12	.05	.01	-.04	-.11	-.07	-.31**	1

Table 6.7
Bivariate Correlations of Measured Variables

Measure	20	21	22	23	24	25	26
Dependent variables							
20. Burnout (Work-related)	1						
21. Burnout (Patient-related)	.54**	1					
22. Job Satisfaction	-.53**	-.37**	1				
23. Affective Commitment	-.22**	-.19*	.34**	1			
24. Intention to Leave	.33**	.34**	-.52**	-.29**	1		
25. Self-reported Absenteeism	.09	-.05	-.14	-.06	.06	1	
26. Self-reported Injury/Workers Compensation Claim	.05	.01	-.04	-.11	-.05	31**	1

Note: * = p<.05, ** = p<.01 (two-tailed). Gender: 1=Male, 2=Female. Work status: 1=Full time, 2=Part-time. Compensation claim: 1=No, 2=Yes.

Other correlations available from the author.

6.1.4 Correlations of individual difference and dependent variables (Exploratory analysis)

Compared with males, females were more likely to work part-time, perform the role of spouse, and experience more work to family and family to work conflict, as well as work to family and family to work positive spillover. Females were also more likely to experience personal and work-related burnout. It should be noted, however, that females comprised the majority of the sample. Older nurses were more likely to perform companionship and to make a worker compensation claim. Nurses who worked part-time and indicated higher trait anxiety were more likely to experience family to work conflict than their counterparts. Those with higher trait anxiety also reported lower levels of social support from supervisors, colleagues, and family and friends. They also reported more family to work conflict, less autonomy, positive affect, affective commitment, job satisfaction, higher levels of all three forms of burnout (a strong correlation was found with respect to trait anxiety and personal-related burnout), and intention to leave. Having higher trait anxiety led to a greater performance of emotion labour in the forms of feigned positive emotion expression and negative emotional suppression.

6.1.5 Correlations between work environment and dependent variables (Exploratory analysis)

Receiving social support from supervisors was strongly associated with receiving social support from colleagues (positive direction), and moderately and positively associated with the availability of social support from friends/family, autonomy, job satisfaction, affective commitment, positive affect, and the performance of companionship and regulation, respectively. Social support from supervisors was weakly to moderately related to work to family positive spillover in the expected (positive) direction, and with personal and work-related burnout, intention to leave, and work to family conflict in a negative direction.

In a similar vein, receiving social support from colleagues was weakly to moderately correlated with social support from friends/family, work-family positive

spillover, autonomy, negative emotion suppression (negative direction), performance of companionship and regulation, positive affect, personal and work-related burnout (negative direction), job satisfaction, affective commitment, and intention to leave (negative direction). Receiving social support from friends/family was moderately associated with positive affect, job satisfaction, and personal and patient-related burnout (negative direction). Weak-moderate associations between social support (family/friends), family to work conflict (negative direction), and affective commitment were also found.

Work to family conflict was associated moderately to strongly with family to work conflict (negative direction), stress, personal and work-related burnout, and job satisfaction (negative direction). Work to family conflict was also weakly to moderately associated with emotion labour (feigned positive emotion expression and negative emotional suppression), positive affect (negative direction), patient-related burnout, affective commitment (negative commitment) and intention to leave. Family to work conflict was weakly to moderately associated with work to family positive spillover, negative emotion suppression, positive affect (negative direction), stress, personal, work and patient-related burnout, job satisfaction (negative direction), affective commitment (negative direction), and intention to leave. Work to family positive spillover was moderately associated with availability of social support from supervisors and co-workers, whereas family to work positive spillover was weakly to moderately associated with family to work conflict, and performance of companionship. Autonomy was weakly-moderately associated with trait anxiety (negative direction), availability of social support from supervisors and from colleagues, performance of companionship and regulation, positive affect, and affective commitment.

Emotion labour (feigned positive emotion expression) was weakly associated with trait anxiety, work to family positive spillover, stress and work-related burnout. Negative emotion suppression was weakly to moderately associated with trait anxiety, work to family and family to work conflict, social support from colleagues (negative direction), stress, personal, work and patient-related burnout, affective commitment (negative direction), job satisfaction (negative direction), and intention to leave.

Lastly, companionship performance was moderately correlated with performance of regulation, and weakly to moderately associated with availability of social support from supervisors and co-workers, family to work positive spillover, autonomy, positive affect, patient-related burnout (negative direction) and intention to leave (negative direction). Performance of regulation moderately correlated with social support from supervisors and co-workers (positive direction), family to work positive spillover and autonomy (positive direction), although did not associate significantly with any of the outcome variables. The predictive power of emotion labour variables was such that they related to psychosocial factors (i.e., availability of social support from supervisors) in a *negative* direction. Emotion work variables on the other hand, tended to be significantly associated with psychosocial factors in a *positive* direction. With respect to the exploratory analysis, there was evidence for differing predictive power between emotion labour and emotion work performance. Emotion labour and emotion work were characteristically related to different constructs.

6.1.6 Correlations between dependent variables (Exploratory analysis)

Positive affect was weakly to moderately and negatively associated with stress, personal, work and patient-related burnout and intention to leave, and moderately and positively related to job satisfaction and affective commitment. Stress was weakly to moderately associated with personal, work and patient-related burnout, intention to leave, and job satisfaction (negative direction). Personal burnout was moderately associated with positive affect (negative affect), stress, work and patient-related burnout, job satisfaction (negative direction), and intention to leave. Work-related burnout was moderately and positively related to stress, patient-related burnout and intention to leave, and negatively related to positive affect, job satisfaction and affective commitment. Work-related burnout strongly correlated with personal burnout. Patient-related burnout moderately correlated with positive affect (negative direction), stress, personal and work-related burnout, job satisfaction (negative direction), affective commitment (negative direction) and intention to leave.

Job satisfaction was moderately and positively associated with positive affect and affective commitment, and moderately and negatively associated with stress,

personal, work and patient-related burnout, and intention to leave. Affective commitment was moderately associated with positive affect, personal, work and patient-related burnout (negative direction), job satisfaction and intention to leave (negative direction). Self-reported Absenteeism was moderately associated with the likelihood of making a workers compensation claim.

6.1.7 Hierarchical multiple regressions (Hypothesis 1, 2 and 3)

For the hierarchical multiple regression analyses, all preliminary analyses and procedures, including inspection of suppression effects, were conducted in the same manner as in the first study (section 4.1.10).

For all multiple regressions, demographic variables such as gender, age and working status were entered in the first step, followed by trait anxiety on the second step. Potential intervening variables such as work-family and family to work conflict, positive spillover, autonomy, and social support from supervisors, colleagues and family and friends were then entered on the third step, followed by all the emotion labour and emotion work variables on the final step. Table 6.8 depicts the summary of planned hierarchical regression analyses for the second study.

Table 6.8

Summary of planned Hierarchical Multiple Regression Analyses

Step	Variable Block	Specific Variables
1	Demographics	• Gender • Age • Working Status
2	Trait Anxiety	• Trait Anxiety
3	Work environment variables	• Work-Family Conflict • Family-Work Conflict • Work-Family Spillover • Family-Work Spillover • Social Support (Supervisor) • Social Support (Colleagues) • Social Support (Family/Friends) • Autonomy
4	Emotion Labour and Emotion Work	• Emotion Labour (Feigned Positive Emotion Expression) • Emotion Labour (Negative Emotion Suppression) • Emotion Work (Companionship) • Emotion Work (Regulation)

In addition to the descriptions below for each outcome variable, the contribution to Adjusted R^2 made by each variable block in hierarchical regression undertaken for the 9 outcome variables studied (Positive affect – Self-reported Absenteeism), and the significant predictors (and beta-values) of the studied outcome variables within each variable block are provided in Tables 6.9 and 6.10. A

comparison between emotion labour and emotion work performance with regard to their influence of the outcomes is shown in Table 6.11. Contributions R^2 and R^2 change made by each variable block in the hierarchical multiple regressions undertaken for the 9 outcome variables, as well as the B, Beta and t-values for each predictor, are shown in Appendix 6.2. The third and final block of all hierarchical multiple regression models revealed R values that were significantly different from zero, with the exception of the hierarchical multiple regression for the outcome Self-reported Absenteeism.

Table 6.9

Contribution to Adjusted R^2 made by each variable block in Hierarchical Multiple Regression undertaken for the 9 Outcome Variables studied (Positive affect – Self-reported Absenteeism)

	Step 1 Demographics	Step 2 Trait Anxiety	Step 3 Work variables	Step 4 Emotion Labour and Emotion Work
Positive Affect	.00	.13	.17	.17
Stress	-.00	.14	.23	.31
Personal Burnout	.01	.42	.55	.55
Work-related Burnout	.04	.32	.54	.55
Patient-related Burnout	-.01	.20	.23	.24
Job Satisfaction	-.01	.15	.26	.26
Affective Commitment	-.00	.07	.17	.15
Intention to Leave	.04	.07	.15	.18
Self-reported Absenteeism	.00	-.00	-.03	-.04

Table 6.10

Significant Predictors (and beta-values) of the studied Outcome Variables within each variable block in Hierarchical Multiple Regression

	Step 1 Demographics	Step 2 Trait Anxiety	Step 3 Work environment variables	Step 4 Emotion Labour and Emotion Work
Positive Affect	n.s.	Trait Anxiety (-.37)	Trait Anxiety (-.26)	Trait Anxiety (-.24)
Stress/Strain	n.s.	Trait Anxiety (.39)	Trait Anxiety (.39) Work-Family conflict (.30) Autonomy (.17)	Trait Anxiety (.18) Work-Family conflict (.28) Family-Work Positive Spillover (.19) Autonomy (.19) Emotion Labour (NES) (.29) Emotion Work (-.25)
Burnout (Personal)	n.s.	Trait Anxiety (.65)	Trait Anxiety (.44) Work-Family Conflict (.42)	Trait anxiety (.43) Work-Family Conflict (.41)
Burnout (Work-related)	Gender (.23)	Gender (.18) Trait anxiety (.54)	Trait anxiety (.34) Work-Family Conflict (.49) Autonomy (.13)	Trait anxiety (.30) Work-Family Conflict (.47) Emotion Labour (NES) (.14)
Burnout (Patient-related)	n.s.	Trait Anxiety (.46)	Trait Anxiety (.44) Work-Family Conflict (.42)	Trait anxiety (.40) Family-Work Conflict (.21) Emotion Work (Companionship) (-.20)
Job Satisfaction	n.s.	Trait anxiety (-.41)	Trait anxiety (-.24) Work-Family Conflict (-.20)	Trait anxiety (-.21) Work-Family Conflict (-.18)
Affective Commitment	n.s.	Trait Anxiety (-.28)	Social Support (Supervisor) (.27)	Social Support (Supervisor) (.27)

			Autonomy (.19)	Autonomy (.19)
Intention to Leave	n.s.	Trait Anxiety (.32)	Trait Anxiety (.20) Family-Work Conflict (.27)	Family-Work Conflict (.25) Emotion Labour (NES) (.27)
Self-reported Absenteeism	n.s.	n.s.	n.s.	n.s.

Note: (NES) = Negative Emotion Suppression.

Table 6.11

Significant contributions (and directions) of Emotion Labour and Emotion Work to the studied Individual and Organisational Outcomes

Variable	Emotion Labour (Direction)	Emotion Work (Direction)
Positive Affect	n.s.	n.s.
Stress	+	-
Personal Burnout	n.s.	n.s.
Work-related Burnout	+	n.s
Patient-related Burnout	n.s.	-
Job Satisfaction	n.s.	n.s.
Affective Commitment	n.s.	n.s.
Intention to Leave	-	n.s.
Self-reported Absenteeism	n.s.	n.s.

Positive affect

For the hierarchical regression with positive affect as the outcome, the overall model explained 26% (16.9% adjusted) of the variance. The demographic variables

contributed 2.2% of the variance (although the model representing the first block of variables was non significant), trait anxiety made a unique contribution of 13.6%, and the third and final block further contributed 7.7% and 2.5% of the variance, respectively. As trait anxiety was the only significant predictor in the final block, the shared variability variance value was 23% [.003 - .26 = .23]. Trait anxiety made significant unique contributions to the equation one all variables were entered, as indicated by the significant beta weight value: b = -.24 (p< .05) (Tables 6.9 and 6.10).

Support for Hypotheses 1, 2 and 3 was not provided, as neither performance of emotion labour nor emotion work performance made a significant contribution to positive affect once other psychosocial variables had been controlled. As such, emotion labour did not hold a comparatively significantly larger contribution to positive affect than emotion work with respect to positive affect.

Stress

For the hierarchical regression with stress as the outcome, the overall model explained 38.5% (31.2% adjusted) of the variance. Trait anxiety made an unique contribution of 15.1%, the third block contributed 12.1% and the final block further contributed 9.6% of the variance. Trait anxiety, work-family conflict, work-family positive spillover, autonomy, negative suppression and companionship made significant contributions to the equation, as indicated by significant beta weight values (Tables 6.9 and 6.10). R square attributed to unique scores was 17.7% [.018 +.049 + .003 + .020 + .053 + .034 = .177]. Together these variables contributed to 20.8% of shared variability [.385 - .177 = .208].

Classical suppression was identified when a non significant association between family to work positive spillover (FWS) and stress [r = -.06, p > .05], and autonomy and stress [r = .03, p > .05] later became significant once other variables were controlled [FWS: beta = .19, p < .05; Autonomy: beta = .16, p < .05].

Hypotheses 1 and 3 were supported, given that both emotion labour (negative emotion suppression) and emotion work (companionship) made significant contributions to the outcome, and that emotion labour performance contributed more

variance in stress than emotion work performance. Increased negative emotional suppression led to an increase in the negative outcome of stress, while performance of companionship tended to reduce stress.

Personal burnout

When personal burnout was the dependent variable the overall model explained 60% (55% adjusted) of the variance. Trait anxiety made an unique contribution of 41.1%, the third block contributed 15.2% and the final block further contributed 0.9% of the variance. For the overall model trait anxiety and work-family conflict produced significant unique contributions to the equation, as indicated by significant beta weight values (Tables 6.9 and 6.10). R square attributed to unique scores was 21.1% [.102 +.109 = .211]. Together these variables contributed to 38.9% of shared variability [.60 - .211= .389]. Hypotheses 1, 2 and 3 were not supported when personal-related burnout was the outcome as performance of both emotion labour and emotion work did not explain significant variance in the dependent measure.

Work-related burnout

Predictors regressed onto work-related burnout produced an overall model that explained 60% (55% adjusted) of the variance. Trait anxiety made an unique contribution of 28.6%, the third block contributed 23.5%, while the final block further contributed 2.3% of the variance. Significant beta values indicated that trait anxiety, work-family conflict and negative emotion suppression made significant contributions to the equation (Table 6.10). The R square attributed to these scores was 20.1% [.048 +.140 + .013 = .201]. Together these variables contributed to 40% of shared variability [.60 - .201 = .399]. Classical suppression was noted in the third step, when a previous non-significant relationship between autonomy and work-related burnout reached significance [r=-.04, $p < .05$], only to become non significant at the forth step.

The results suggested that Hypothesis 1 was only partially supported, as only performance of emotion labour explained variance in the equation. Hypothesis 2 was also partially supported, as emotion labour appeared more likely to significantly contribute to work-related burnout given that performance of emotion work contributed no significance to the equation. In a similar vein, Hypothesis 3 was

partially confirmed, as performance of emotion labour appeared to increase work-related burnout.

Patient-related burnout

Predictors regressed onto patient-related burnout produced an overall model that explained 32% (23.8% adjusted) of the variance, indicating that 32% of the variability in patient-related burnout could be predicted by the predictor variables. Trait anxiety made a unique contribution of 20.9%, the third block contributed 6.4%, while the final block further contributed 3.2% of the variance. Significant beta coefficient weights revealed that trait anxiety, family to work conflict and companionship produced unique and significant contributions to the equation (Table 6.10). Variance attributed to unique scores was 13.9% [.032 +.086 + .021 = .139]. Together these variables contributed to 18.1% of shared variability [.32 - .139 = .181].

Hypothesis 1 was partially supported, as performance of emotion work, although not emotion labour performance, made a significant contribution to patient-related burnout. Hypothesis 2 was not confirmed, as it was not possible for emotion labour performance to show stronger effects with the outcome given that it did not make a significant contribution to the equation. In a similar vein, Hypotheses 3 was partially supported given that emotion work performance contributed positively to a reduction in patient-related burnout.

Job satisfaction

Predictors regressed onto job satisfaction produced an overall model that explained 33.9% (25.7% adjusted) of the variance. Trait anxiety made a significant, unique contribution of 17%, the third block contributed 14.1%, and the final block further contributed 2.1% of the variance. Significant beta values indicated that trait anxiety and work-family conflict provided significant contributions to the equation (Table 6.10). The R square attributed to unique scores was 4.5% [.025 +.020 = .045]. Together these variables contributed to 29.4% of shared variability [.339 - .045 = .294].

Hypotheses 1, 2 and 3 were not supported, as neither emotion labour, nor emotion work performance appeared to significantly influence job satisfaction.

Affective commitment

Predictors regressed onto affective commitment produced an overall model that explained 24.2% (15.2% adjusted) of the variance. As for the previous hierarchical regressions, the first block was non significant, as indicated by a non significant F value. Unlike the first study, however, significant F values were observed for the second, third and forth models containing the second, third and final blocks of variables when affective commitment was the outcome (Tables 6.9 and 6.10).

The second block made an unique contribution of 7.9%, while the third and final blocks produced contributions to the variance of 13.4% and 1.1%, respectively. For the overall model, significant beta values indicated that social support from supervisors and autonomy produced significant unique contributions to the equation. The R square attributed to unique scores was 7.5% [.045 +.030 = .075]. Together these variables contributed to 16.7% of shared variability [.242 - .075 = .167].
As with job satisfaction, Hypotheses 1, 2 and 3 were not confirmed as neither emotion labour nor emotion work contributed to affective commitment.

Intention to leave

Predictors regressed onto intention to leave produced an overall model that explained 31% (23% adjusted) of the variance (Tables 6.9 and 6.10). The second block made a unique contribution of 9.8%, while the third and final blocks produced contributions to the variance of 13.4% and 5.9%, respectively. For the overall model, significant beta values indicated that family to work conflict and performance of negative emotion suppression produced significant unique contributions to the equation. Interestingly, trait anxiety significantly contributed to the equation until the final step, whereby this significant association diminished. The R square attributed to unique scores was 9.3% [.045 + .045 = .093]. Together these variables contributed to 21.5% of shared variability [.308 -.093 = .215].

Hypotheses 1 was partially confirmed as emotion labour in the form of negative emotional suppression significantly explained variance to the equation. Hypothesis 2 was also confirmed, as performance of emotion labour produced more variance in the equation than emotion work performance. Hypothesis 3 was partially supported, given that emotion work did not significantly contribute variance at all, although on the face of it, performance of emotion labour contributed more variance to intention to leave than emotion work performance.

Self-reported absenteeism

As found in the first study, none of the predictors made a significant contribution the regression equation when self-reported absenteeism was the dependent variable (Tables 6.9 and 6.10). Therefore Hypotheses 1, 2 and 3 were not confirmed.

6.1.8 Logistic Regression: Workers compensation claims

A sequential logistic analysis was performed to assess the prediction of membership in one of the two categories of having made versus having not made a compensation claim during the course of nursing work. The variables included were the same as those included for the above multiple regression analyses. The dependent categorical variable was 'compensation claims' (1=Yes, and 0=No). Forty four participants (31%) indicated that they had not made a compensation claim, whereas ninety eight (69%) respondents suggested that they had made a claim (N=142). The cells were therefore unequal.

As suggested in study one, a preliminary screening of outliers, independence of errors, as well as adequate ratio of cases to variables and missing data that occur at random was performed. To avoid a significant loss of data, no adjustment was made (over and above the routine check of assumptions) to ensure that the ratio of cases were almost equal, as the amount of nurses who had made compensation claims was under one third of the total sample size.

SPSS Missing Value Analysis procedure was run to investigate patterns of missing data and evaluate randomness. Separate variance t-tests for quantitative

values with more than 5% of missing cases as well as a percent mismatch test indicated that missing data for the variable compensation claim was likely to be related to missing data associated with the variables absenteeism (for both claimant and non claimant groups) and trait anxiety (for only those who had made a claim). A statistical deviation from randomness was observed with use of Little's MCAR test (Chi-square = 255.16, DF = 177, $p < .0001$), suggesting the introduction of biases on account of missing data. To avoid further biasing the data, cases with incomplete scores/missing data for variables were not removed. The number of missing cases for all variables is shown in Tables 6.6 and 6.7 above.

In addition, independent t-test comparisons were conducted in order to assess whether significant differences were revealed between each predictor variable and the outcome prior to conducting a logistic regression analysis. No significant differences were revealed between any of the predictor variables and the outcome. Therefore, no further analyses were conducted. Consequently, Hypotheses 1, 2 and 3 were not confirmed, given that neither the emotion labour, nor the emotion work variables contributed to model fit. Table 6.9 displays the contributions and direction of emotion labour and emotion work variables and the studied individual health and organisational outcomes.

Mediation and moderation effect models

6.1.9 Mediation effect analyses (Exploratory analysis and Hypotheses 3)

As in the first study, simple mediation analyses that depicted emotion labour and emotion work performance as variables of interest were explored in the second study. The Sobel test was used to assess the relationships with regard to the influence of mediator variables on the relationship between predictors and outcomes. To investigate the exploratory analysis and Hypothesis 3, 40 simple mediation analyses were conducted (using the Sobel test) in order to assess if emotion labour or emotion work significantly mediated relationships between other psychosocial variables and outcomes.

The two emotion labour subscales and the two emotion work subscales, as well as all 3 social support subscales were (individually) tested as both intervening

variables (mediators) and predictor variables. Combinations of these variables and other individual difference and work environment variables studied in the research program were tested. Fourteen models held significant z scores, and direct, indirect and total effects were then calculated to determine the type of mediation that had taken place, as well as the amount of variance explained by the mediator. The indirect effect was calculated as the sum of the Pearson correlation between IV and M, with the correlation between M and the DV. The direct effect was the direct correlation between the IV and the DV, while the total effect was the sum of the direct and indirect effects, respectively. Partial mediation was recorded if the variance explained by the mediator was greater than .06. Ten significant mediation effects with significant Sobel test scores are presented in Table 6.12.

Table 6.12

Simple Mediation Analyses

Social Support (Co-workers) —a→ EL (Negative Suppression) —b→ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.15	.07	.45	.08	-1.96	-.24* (-.18*)	-.06*	Partial

Social Support (Co-workers) —a→ EL (Negative Suppression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
-.15	.07	.53	.09	-2.0*	-.18* (-.11*)	-.07*	Partial

Work -Family Conflict $\xrightarrow{a}$ EL (Negative Suppression) $\xrightarrow{b}$ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.19	.04	.45	.08	3.57**	.65** (.52**)	.13**	Partial

Work -Family Conflict $\xrightarrow{a}$ EL (Negative Suppression) $\xrightarrow{b}$ Patient-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.19	.04	.30	.11	2.45*	.28** (.21**)	.07**	Partial

Family-Work Conflict $\xrightarrow{a}$ EL (Negative Suppression) $\xrightarrow{b}$ Personal Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.15	.05	.45	.08	2.64*	.33** (.24**)	.09**	Partial

Family-Work Conflict —a→ EL (Negative Suppression) —b→ Work-related Burnout

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.15	.05	.53	.09	2.72*	.31** (.21**)	.10**	Partial

Work -Family Conflict —a→ EL (Negative Suppression) —b→ Stress

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.19	.04	1.05	.18	3.65*	.40** (.26**)	.14**	Partial

Family-Work Conflict —a→ EL (Negative Suppression) —b→ Intention to Leave

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.15	.05	.18	.05	2.71**	.26** (.20**)	.06**	Partial

Family-Work Conflict —a→ EL (Negative Suppression) —b→ Affective Commitment

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.15	.05	-.26	.10	-1.92*	-.17* (-.13*)	-.04*	Partial

Work-Family Conflict —a→ EL (Negative Suppression) —b→ Affective Commitment

a	S_a	b	S_b	z	DE (AM)	IE	Mediation type
.19	.04	-.26	.10	-2.20*	-.20** (-.12**)	-.06*	Partial

Note: *** = p<.001. ** = p<.01. * = p<.05. IV = Independent Variable. DE (AM) = Direct Effect (Beta after mediation). IE = Indirect Effect.

An inspection of the table reveals that although one model showed complete mediation, the majority of models were affected by partial mediation only. However, it should be noted that out of the 13 significant moderation effects found, 1 moderation effect may have been significant by chance.

The evidence for the exploratory analysis, as in the first study, indicated that emotion labour and emotion work influenced the effect of different psychosocial factors outcomes in different ways. Hypothesis 3 was supported in that emotion labour performance was more likely to exacerbate negative outcomes than emotion work performance.

6.1.10 Moderation effect analyses (Exploratory analysis and Hypothesis 3)

Forty moderation effects were tested using the same variables as tested in the mediation analysis. The procedure used to calculate moderation effects in the first study was implemented in the second study: unstandardised B values were standardised across high and low levels of the third and predictor variables (determined as 1 standard deviation below and 1 standard deviation above), so that all 3 variables could be compared (See section 6.1.11 for an explanation of the calculation of moderation effects for the second study).

Two interaction effects were found. Figure 6.2 displays the significant Family to Work Conflict X Emotion Labour (Negative Emotion Suppression) model ($\underline{\beta}$ = -.12, $\underline{p}$ < .05), and indicates that personal burnout scores were lower when negative emotions were not suppressed often, regardless of the level of family to work conflict. However, personal burnout was slightly lower when low family to work conflict was present when compared to high family to work conflict.

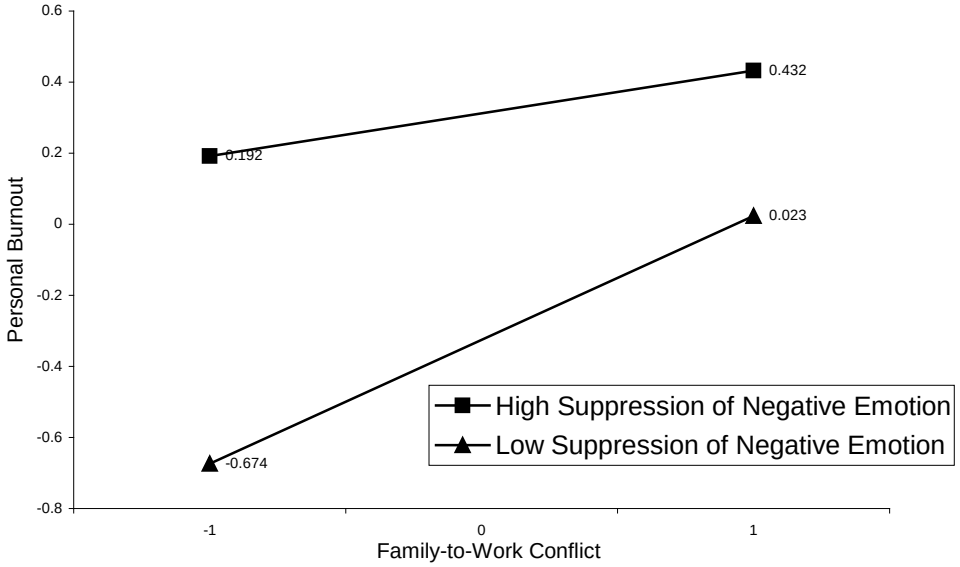

Figure 6.2. Moderating effect of Negative Emotion Suppression on the relationship between Work to Family Conflict and Personal Burnout.

Figure 6.3 presents the significant Autonomy X Emotion Work (Companionship) interaction ($\underline{\beta}$ = -.25, $\underline{p}$ < .01). The figure suggests that high companionship, coupled with autonomy, produces lower levels of patient-related burnout than other combinations. Interestingly, low levels of autonomy and high companionship led to an increase in patient-related burnout, although at a similar level of patient-related burnout than low autonomy and low companionship. This suggests that both autonomy and companionship are necessary to predict low patient-related burnout (e.g., nurse autonomy is necessary for performance of companionship, in turn, leading to low patient burnout).

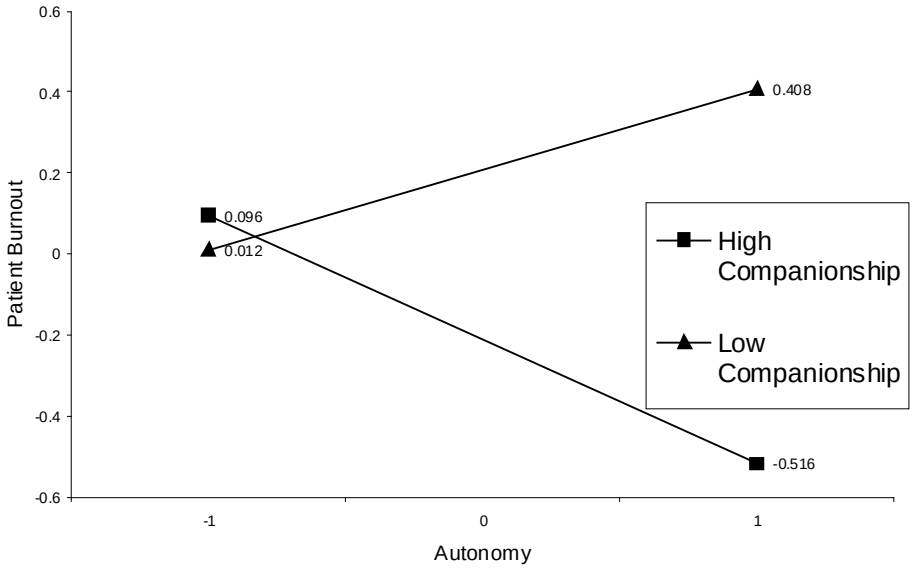

Figure 6.3. Moderating effect of Emotion Work (Companionship) on the relationship between Autonomy and Patient-related Burnout.

In a similar vein to the simple mediation analysis results, the evidence was in favourable support of both the exploratory analysis and Hypothesis 3.

6.1.11 Path analysis (Hypothesis 4)

Hypothesis 4 predicted that increased performance of the emotion labour requirement feigned positive emotion expression is associated with increased performance of the requirement to suppress negative emotion, and that this in turn, increases work-related burnout. Moreover, it was hypothesised that emotion labour in the form of negative emotion suppression would have a direct effect on work-related burnout, and that emotion labour in the form of feigned positive emotion expression would indirectly effect work-related burnout via negative emotion suppression. This indicates that nurses who performed emotion labour in the form of feigned positive emotion expression for the benefit of the organisation were more likely to suppress negative emotion, which would contribute to work-related burnout beyond the direct effects. As in the first study, indirect and direct effects were investigated via simple path analyses (mediation analysis) using structural equation modelling of the relationships

between emotion labour variables and work-related burnout. The predicted model, alternative and nested models were compared.

Surface acting and deep acting were not measured in the second study. In addition, the emotion work variables companionship and regulation did not significantly correlate with the job satisfaction item for the private hospital sample. Thus, simple mediation analyses examined only the relationships between feigned positive emotion expression and negative emotion suppression variables with work-related burnout. Notwithstanding these amendments, the results of the simple path analysis were compared with the results found in the first study, in which relationships between the same variables were explored. As shown above, positive significant relationships between work-related burnout and the two emotion labour variables, feigned positive emotion expression and negative emotion suppression, were identified previous to conducting the analyses (Table 6.7).

Modelling emotion labour variables with work-related burnout

As in the first study, a maximum likelihood algorithm missing data estimation method, provided via the Amos 5 program, was used given that there were missing data. A variance-covariance matrix was produced and submitted to structural equation modelling using AMOS 5 (Arbuckle & Wothke, 1999) in order to test the hypothesised models. The variables were modelled in a path diagram according to these preliminary relationships, and tested for model fit using structural equation modelling. As in study one, model identification and estimation of each of the factor structures that comprised the structured models were also initially conducted.

The factor structure of emotion labour in the form of feigned positive emotion expression was just identified, while the factor structure for negative emotional suppression had very good fit, as suggested by fit indices (NFI and CFI close to 1, chi-square-degrees of freedom ratio < 2 RMSEA < .04). However, the factor structure of the work-related burnout scale (with the final item removed) of the Copenhagen Burnout Inventory appeared to reveal acceptable to poor fit, depending on the fit index considered. Detailed results of the confirmatory factor analyses of the factor structures are beyond the scope of this chapter and are therefore not presented.

Model identification and model estimation

Maximum likelihood estimation was employed to estimate the models. Relationships between variables were modelled and alternative and nested models compared. Fit indices for all models appear in Table 6.13.

Model 1 was the proposed simple mediation model of feigned positive emotion expression having a direct effect on negative emotion suppression, which would, in turn, directly effect work-related burnout (Figure 7.4).

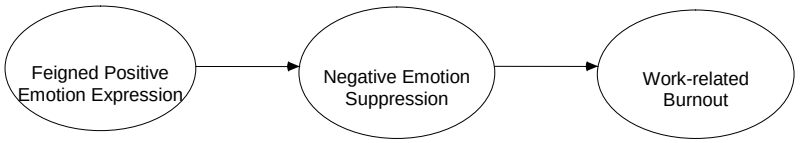

Figure 6.4. Path Analysis representing Model 1.

All parameter estimates were significant, and the CFI and normed χ^2 fit indices were within the range of acceptable fit according to the guidelines of Engel, Moosbrugger and Muller (2003). However other estimates suggested poor to acceptable fit of the model (i.e., the confidence interval for the RMSEA suggested some sampling error).

As in the first study, it appeared that negative emotion suppression mediated the relationship between feigned positive expression and work-related burnout (Table 6.12). The standardised total effects of feigned positive emotion expression and negative emotion suppression on work-related burnout were ß = .26 and ß = .52, respectively, while the total effect for feigned positive expression on negative

suppression was ß = .50 (p < .001 for all effects)**.** Feigned positive emotion expression had a significant, moderate indirect effect on work-related burnout (ß = .26, p < .001).

A direct effect between feigned positive emotion expression and work-related burnout was added to the former model to produce Model 2 (Figure 6.5).

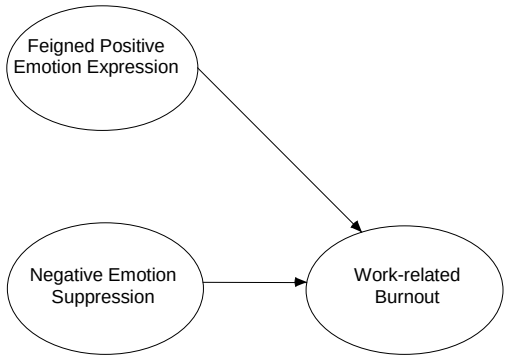

Figure 6.5. Path Analysis representing Model 2.

Interestingly, although all other regression weights and total, direct and indirect effects were statistically significant, there was a non-significant association between feigned positive emotion expression and work-related burnout (ß= -.02, p = .69)**.** Therefore, Model 2 was rejected and re-estimated based on this non-significant finding. Model 3 provided an alternative model to Model 1, where feigned positive emotion expression was set to mediate the relationship between negative emotion expression and work-related burnout (Figure 6.6).

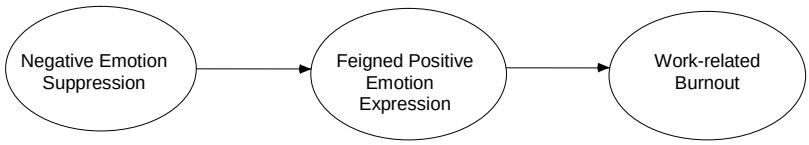

Figure 6.6. Path Analysis representing Model 3.

In Model 3, feigned positive emotion expression did produce a statistically significant direct effect on work-related burnout once it operated as a mediator in the relationship between negative emotion suppression and work-related burnout. All fit indices suggested that Model 1 produced a slightly better fit than the alternative, Model 3.

Models 4 and 5 tested whether both feigned positive emotion expression and negative emotion suppression hold significant direct effects on work-related burnout (with the emotion labour variables set to co-vary in Model 4), although were rejected subsequent to the non-significant association found between feigned positive emotion expression and work-related burnout. Models 4 and 5 are represented in Figures 6.7 and 6.8.

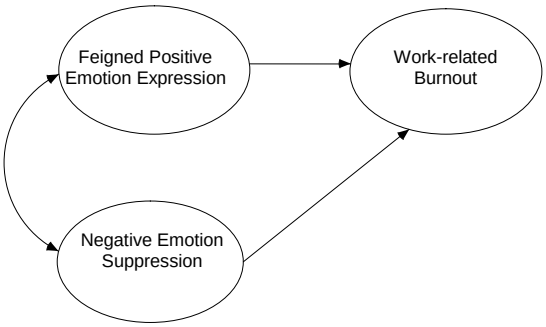

Figure 6.7. Path Analysis representing Model 4

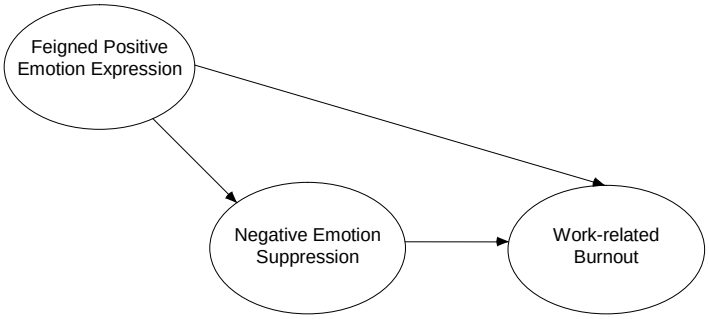

Figure 6.8. Path Analysis representing Model 5

The Akaike Information Criterion (AIC) values indicated a better fitting parsimonious model after this parameter was omitted (Table 7.11). However for both models, some fit indices were found to reflect acceptable model fit, as shown in Table 7.11 (e.g., Normed χ^2 for both models, RMSEA for Model 5, CFI for Model 5 and AIC and ECVI values for both models).

Table 6.13

Chi Square and Fit Indices for Path Analyses

	χ^2	df.	χ^2/df	RMSEA	LO 90	HI 90	NFI	CFI	AIC	ECVI
Model 1	146.69*	63	2.33	.087	.07	.11	.85	.91	228.79	1.31
Model 2	146.63*	62	2.37	.088	.07	.11	.85	.91	230.63	1.32
Model 3	174.18*	63	2.77	.10	.08	.12	.83	.88	256.18	1.46
Model 4	175.57*	63	2.79	.10	.08	.12	.83	.88	257.57	1.47
Model 5	146.63*	62	2.37	.088	.07	.11	.85	.91	230.63	1.32

Note: χ^2 = Chi Square. df. = degrees of freedom, χ^2/df = Chi Square/degrees of freedom ratio, RMSEA = Root Mean Square Error of Approximation, GFI = Goodness of Fit Index, NFI = Normed Fit Index, CFI = Comparative Fit Index, AIC = Akaike Information Criterion. # = smaller than for comparison model. * = $\underline{p} < .0001$.

The independence null model testing the hypothesis that all variables were uncorrelated was rejected for all models Model 1: [$\underline{\chi^2}$ (63, $\underline{N}$=176) =146.79, $\underline{p}$ = .000]; Model 2 [$\underline{\chi^2}$ (62, $\underline{N}$=176) =146.63, $\underline{p}$ = .000)]; Model 3: [$\underline{\chi^2}$ (63, $\underline{N}$ =176) =174.18, $\underline{p}$ = .000]; Model 4: [$\underline{\chi^2}$ (63, $\underline{N}$=176) =175.57, $\underline{p}$ = .000]; Model 5: [$\underline{\chi^2}$ (62, $\underline{N}$=176) =146.63, $\underline{p}$ = .000]; confirming the presence of inter-correlations in the data and therefore its suitability for SEM analysis. Further, a chi square difference test indicated significant improvements in fit between the hypothesised models and their respective independence models Model 1: [χ^2diff(28, N=238) = 856.97, p = .000]; Model 2: [χ^2diff(29, $\underline{N}$=238) = 857.13, $\underline{p}$ = .000]; Model 3: [χ^2diff(28, $\underline{N}$=238) = 829.58, $\underline{p}$ = .000]; Model 4: (χ^2diff(28, $\underline{N}$=238) = 828.19, $\underline{p}$ = .000] Model 5: [χ^2diff(29, $\underline{N}$=238) =857.13, $\underline{p}$ = .000].

In effect, Model 1 produced the best fit, albeit borderline acceptable fit. Support for Hypothesis 4 was therefore found. As suggested above, this model indicates that the suppression of negative emotions mediates the relationship between

feigned positive emotion expression and work-related burnout. Figure 6.8 displays the simple mediation effect for Model 1.

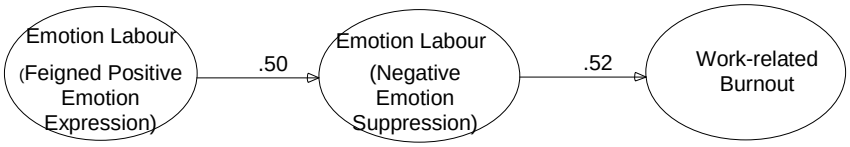

Figure 6.9. Simple mediation effect of emotion labour (negative emotion suppression) on the relationship between emotion labour (feigned positive emotion expression) and work-related burnout.

As for study one, the exploratory nature of path analyses examined, as well as inconsistencies in number of cases meant that missing data counts between variables varied (the data set was not completely free of missing data). As such, modification indices were not analysed using the AMOS 5 program, and no model specification took place with respect to the path analyses.

6.1.12 Confirmatory factor analyses (Hypothesis 5)

Hypothesis 5 predicted that the best fitting burnout factorial structure encompasses three independent and distinct constructs representing work, personal and client-related exhaustion (as proposed by Kristensen *et al.*, 2005). The dimensionality of the CBI was analysed according to one factor, two factor and three factor models, in lieu of an alternative measurement model. The two-factor model was an amalgamation of

personal and work-related exhaustion, which formed the first factor, and patient-related exhaustion as the second. First-order latent factors were specified. All items had significant loadings on the intended first-order latent factors. The one factor measurement model appeared to incorporate moderate to strong factor loadings. The strength of the factor loadings increased for the two and three-factor measurement models, indicating increased convergent validity for measurement models with more than one emotional exhaustion factor.

For the model testing one factor, fit indices did not appear to reach acceptable fit according to the guidelines (Appendix 6.3) (RMSEA = .15, LO 90 = .14, HI 90 = .16; CFI = .72; SRMR = .09; NFI = .67; Normed χ^2 = 4.48). Fit index estimates did improve for the two-factor model (RMSEA = .085, LO 90 = .07, HI 90 = .098; CFI = .91; SRMR = .048; NFI = .85; Normed χ^2 = 2.25). The three-factor measurement model presented the best model fit to the data over the nested one [χ^2diff (3, N=176) = 321.34, p < .001] and two-factor models (see χ^2diff below). However, although they improved over the former measurement models, many fit indices for the three-factor model suggested only acceptable, as opposed to good fit, to the data (RMSEA = .08, LO 90 = .069, HI 90 = .098; CFI = .91; SRMR = .047; Normed χ^2 = 2.15). Chi square and fit index values are presented in Table 6.14.

Given that the three-factor model revealed a strong association between personal and work-related burnout (covariance value/association = .94), therefore posing a risk with regard to the divergent validity of individual exhaustion constructs, the two factor and three factor nested models were subjected to a chi-square difference test. A significant chi square difference: χ^2diff (2, N=176) = 17.48, p < .001, as well as lower AIC values found for the three-factor measurement model [Two factor AIC = 374.80 versus Three-factor AIC = 361.39] revealed that the three factor structure best fitted the data over and above the two factor structure. The three-factor model was therefore retained for model specification and modification. In support of Winwood and Winefield‘s (2004) thesis, moderate to strong associations observed between personal and patient-related burnout (Standardised Covariance = .53) and between work-related and patient-related burnout (Standardised Covariance= .60) were regarded as a property of emotional exhaustion overlapping between the

domains. This finding did not therefore indicate that the individual constructs were not distinct (i.e., divergent validity was maintained).

Model misspecification and modification

Post hoc modification indices were examined for the three-factor CBI model.
Inspection of standardised residual covariance matrix patterns (i.e., the difference between the sample covariance and the model-implied covariance: should be less than 2 in absolute value) revealed that only one absolute value over 2 (-2.01) was evident for the standardised residual covariance between item four of the work-related burnout scale and item 5 of the patient-related burnout scale. Following this, the researcher decided to inspect modification index values as an alternative.

Modification index values for co-variances or regression weights above 10 were considered worthy of note. Modification indices above 10 were identified for co-variances between item 4 of personal and work-related burnout subscales, between item 5 of work-related burnout scale and item 4 of the personal-related burnout subscale, item 3 of the personal-related burnout scale and item 1 of the work-related burnout scale, items 1 and 2 of the personal-related burnout scale and the work-related burnout scale, respectively, and the last two items of the patient-related burnout scale. The researcher was provided with the option to allow error variances to co-vary, to allow items to load on other factors or, based on theoretical relevance, to allow other variables to co-vary in order to lower the χ^2 value. The highlighted error variances were allowed to co-vary as a model modification procedure. Once these items were allowed to co-vary, the chi-square value for the model lowered and the fit indices indicated an improved fit to the data that approached the acceptable to good fit range (RMSEA = .059, LO 90 = .04, HI 90 = .075; CFI = .96; SRMR = .045; NFI = .90; Normed χ^2 = 1.56). However, the researcher noted that fit indices may be affected by model misspecification, and may indicate better fit than what may be the case.

Table 6.14

Chi Square and Fit Indices for Confirmatory Factor Analyses

	χ^2	df.	χ^2/df	RMSEA	LO 90	HI 90	GFI	NFI	CFI	AIC	ECVI
One Factor	604.73*	135	4.48	.15	.14	.16	.63	.67	.72	676.73#	4.23#
Two Factor	300.80*	134	2.25	.085	.07	.10	.84	.85	.91	374.80#	2.19#
Three Factor	283.39*	132	2.15	.085	.07	.10	.84	.84	.91	361.39#	2.26#
Three Factor (Modified)	196.80*	126	1.56	.06	.04	.075	.89	.89	.96	286.80#	1.79#

Note: χ^2 = Chi Square. df. = degrees of freedom, χ^2/df = Chi Square/degrees of freedom ratio, RMSEA = Root Mean Square Error of Approximation, GFI = Goodness of Fit Index, NFI = Normed Fit Index, CFI = Comparative Fit Index, AIC = Akaike Information Criterion, # = smaller than for comparison null model. * = p= .000.

Figure 6.10 displays the modified Three-Factor measurement model**.**

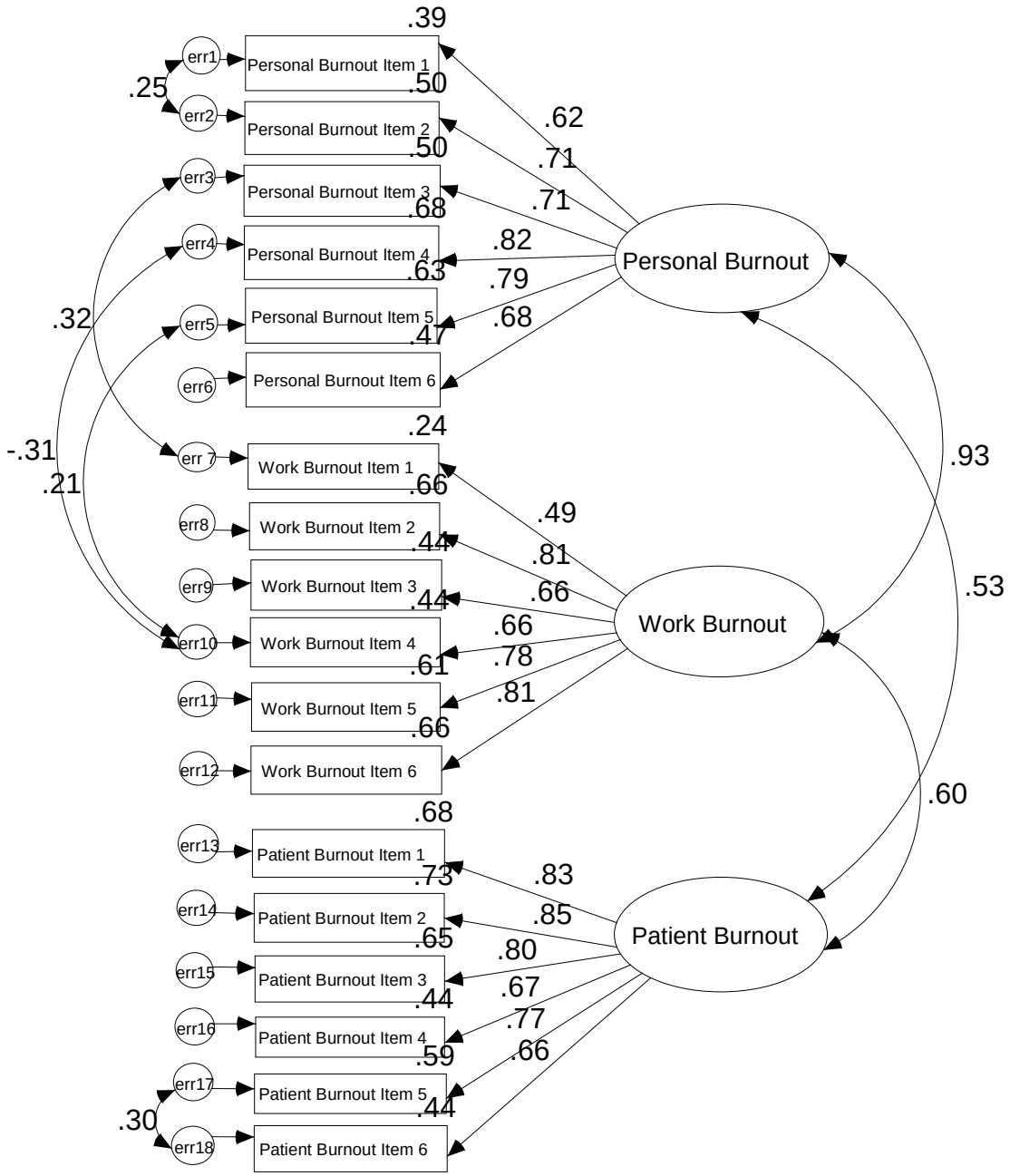

Figure 6.10. Modified three factor measurement model.

Therefore, the results indicate support for *Hypothesis 6*, in that a (modified) three-factor structure model appeared to best fit the data by comparison to null, one factor or two-factor measurement models.

6.1.13 Other quantitative and qualitative exploratory analyses

Final survey question

A data-driven thematic analysis was conducted on short responses provided by nursing staff to a question initiating overall comments, and on the responses to three short questions pertaining to three vignettes. Although the methodology was based on a data-driven approach, the author had acquired pre-conceived ideas from both previous research and the previous study conducted on public hospital nurses that may have influenced development of the themes (Boyatzis, 1998).

The author coded themes as either individual themes, or as overarching themes containing sub-themes. Some responses were coded more than once under separate themes. However, each theme was sufficiently distinct from other themes and thoroughly encapsulated the responses that it represented. Themes that were considered too broad to incorporate specific ideas were grouped into overarching themes with sub-themes attached. Likewise, responses that described the same core idea within different formats were coded under the same theme.

After two weeks had lapsed since initial themes were extracted from the dataset, the researcher once again conducted a thematic analysis on the data set to ensure intra-reliability of the previous results obtained. The same themes re-emerged. Further, in order to determine inter-rater reliability of the results obtained, a second coder was employed to analyse the data set and extract themes using thematic analysis. Kappa analyses were conducted on each analysis, as in the first study (section 4.1.17). The strength of the Kappa co-efficient statistic determines the extent to which agreement with regard to coding of themes is identified between the primary and secondary coder (Cohen, 1964).

Five themes emerged from analysing responses to the question: '*Is there anything else you would like to add regarding your work and how it affects you? If so, please add your comments here'*. Thematic analysis using coding introduced by Boyatzis (1998) allowed the researcher to code themes according to their description, indicators and exclusions. The format is presented below, along with examples

depicting each theme, and frequency of presence of each theme in the data set. The themes are presented in order of frequency in the data set (as located by the primary coder). The inter-rater reliability of the extracted themes is shown in Table 6.15.

Theme 1:	**Understaffing**
Description	Due to understaffing, nurses are overworked and may be experiencing high expectations placed upon them from both management and patients.
Indicators/flags	Nurses are understaffed Patient/nurse ratio is too high due to budgeting concerns Nurses feel sandwiched between management and patients The priority is money before patient care
Exclusions	N/A

An example of a response that was coded as a sub-theme of the first theme was:
'Constantly understaffed, high standards of care expected, expected to cope. I feel undervalued as a person, as an employee, and stressed trying to provide patient care that is becoming more and more task orientated.'
Another example was: *'Nurses work very hard for their pay. Meeting budgets ensures they always have a heavy workload and very high expectations of achieving high quality care regardless.'* Thirty three (25.98%) nurses described the first theme, according to the primary coder (N=127).

Theme 2:	**Poor working conditions**
Description	Nurses may feel that they have to do their job under poor working conditions
Indicators/flags	Nurses assert that more funding for equipment and resource needs to be obtained Equipment necessary for performing duties may be lacking Work environment and facilities (e.g., lighting) could be improved
Exclusions	N/A

Theme 2 depicted poor working conditions for nurses, such as the physical conditions of working areas, or little available equipment.

Responses that represented Theme 2 were:

'(nursing specialty name omitted to protect participant) *room has no windows and many fluoro lights – quite unusual. All work in one room. Have nothing left at end of the day to fight work conditions – nurses work for their patients.'*

'We work in 'third world conditions,' and: *'I suppose the increasing pressure to make money and thus lack of equipment and staffing constraints play a factor.'*

Six (4.72%) nurses described poor work conditions. This theme had the lowest prevalence in the data set, in addition to Theme 5 below.

Theme 3:	**Bullying and harassment**
Description	Nurses may be subjected to bullying and harassment by other co-workers and managers
Indicators/flags	Nurses being bullied may want to avoid going to work Worksite bullying has been identified as an issue in nursing Nurses who have not had the ability to form good relationships with other staff members may experience increased stress and frustration on top of a heavy workload
Exclusions	N/A

Examples of responses coded under the third theme, labelled 'Bullying and harassment', were: *'Worksite bullying can be an issue'* and *'Some worksite cultures are violent.'* Seven (5.51%) nurses labelled bullying and harassment as an issue, rendering this theme the least prevalent, after Themes 2 and 5.

Theme 4:	**Low monetary reward**
Description	Increased job satisfaction for nurses may be gained through an increase in salary
Indicators/flags	Nurses may assert that they are underpaid
Exclusions	N/A

Low monetary reward was the forth theme. An example of a response coded under this theme is: *'We do not make a lot of money for the work we do, the hours we are expected to work are weekends and on call and overtime.'*
Nine (7.08%) participants described this fifth most prevalent theme.

Theme 5:	**Task orientated care**
Description	Task-orientated care is overshadowing holistic nursing work
Indicators/flags	Task orientated care takes preference over other nursing duties General well being of patients should come first, but is not currently the highest priority due to time consuming task orientated care Too many non-nursing duties or tasks that are not typically associated with nursing are expected of nurses
Exclusions	N/A

A lower priority for holistic care and a higher preference for budgeting, paperwork and other non-nursing duties was perceived by six (5.51%) nurses. Theme 5 was the lowest prevalent theme in the dataset, in addition to Theme 2. An example of a response representing this theme was:

'Never enough time for anything these days except essential tasks. Now I just accept it, get frustrated but work means less to me than it used to' and *'Paperwork and computers priority, not patient care as it should be…too much paperwork and less time for patients – frustrating.'*

Theme 6:	**Nurse job satisfaction**
Description	Nursing is a very enjoyable and rewarding career choice.
Indicators/flags	N/A
Exclusions	N/A

Theme 6, nurse job satisfaction, was the forth most frequently coded theme. Fifteen (11.81%) nurses described job satisfaction in nursing. An example to represent this theme was: *'Nursing is an enjoyable and very rewarding career choice, and despite repeatedly being told you are not born a nurse, I feel that some people just are.'*

Theme 7:	**Shift work and work to family balance**
Description	Full-time shift work affects family/social life
Indicators/flags	Shift work can be exhausting and place stress on family life
Exclusions	N/A

Shift work that negatively influenced work to family balance, due to inconvenience with respect to family/social commitments, was the second most prevalent theme that emerged. Examples of responses included: *'My family always ask why do you have to go to work, especially on weekends?'* and *'Feel constant exhaustion due to constant*

battle giving all emotionally and physically to both work and home.' Eighteen (13.39%) nurses provided responses that were coded under this second most frequently coded theme.

Theme 8: Staff support

Sub-theme 1: Lack of support among team members
Description In some areas of nursing there is a lack of support and team-work among nursing staff
Indicators/flags Some staff do not appear to make an effort Some clinical managers are poor role models Administration/management do not listen to staff concerns Nurses are unable to express themselves to management
Exclusions N/A

An example of a response that mimicked the sub-theme of Theme 8 was:

'I think some staff need to be more supportive of each other and show a little compassion whether it be work or home related. Sometimes I think the team-work has gone out the window. If people supported each other when the workplace was busy the stress levels would decrease and productivity would increased as well as creating a happier place to work.'

Sixteen (12.60%) nurses provided responses coded under this sub-theme. The sub-theme was the third most prevalent issue coded in the dataset.

Sub-theme 2: Support and assistance from staff members

Description

In some areas of nursing there is good social support from staff members that work together as a team

Indicators/flags

When times are tough, colleagues are supportive and will work together

Nursing work is enjoyable when there is access to social support from other staff members (supervisors and co-workers).

Exclusions

N/A

The second sub-theme of Theme 8 focused on the benefit of receipt of adequate support and assistance from supervisors and co-workers that work together as a team. Nine (7.08%) nurses described this forth most prevalent issue. Examples for this theme included: *'I have gained great support by talking to peers and supporting others as they have supported me'* and *'I work for a great unit with supportive staff.'*

Sub-theme 3: Feeling undervalued

Description

Nurses may feel like a number and undervalued

Indicators/flags

Praise, positive feedback and acknowledgement of nurses' hard work are required

Exclusions

N/A

Descriptions of long working hours, being the 'backbone' of hospitals, and often receiving limited praise and recognition in return, formed sub-theme 3 of Theme 8. Eight (6.30%) participants provided responses resembling this seventh most prevalent sub-theme. Example to support this sub-theme were:

'I feel nurses are underpaid, undervalued, and over-worked. We are the 'backbone' of hospitals and without us they would crumble' and *'Lack of positive feedback in the forms of verbal encouragement/appreciation and monetary rewards are negligible and can make you feel frustrated and angry considering …how hard you have to/and are expected to work.'*

As in the first study, inter-reliability was assessed. The Kappa coefficient (K=.92) used to calculate the inter-rater reliability for the thematic analysis of the question that initiated overall comments, indicated very high inter-rater reliability. The calculations for all Kappa analyses conducted are shown in Appendix 6.4.

Qualitative data: Vignettes

Three vignettes were devised in order to explore the types of emotions that nurses may express on the job in light of particular scenarios. The vignettes were carefully created in order to potentially elicit positive (in the case of Scenario One), or negative (in the case of Scenario Two) emotions. The researcher sought to explore whether nurses performed emotion labour, emotion work, or both types of emotion management in expressing positive or negative emotions on the job, as well as the frequency of use of each type of emotional skill.

The themes that describe the responses are presented in relation to how often they were identified in the data set by the primary coder. The first vignette, labelled Scenario One, described a middle-age patient with a chronic illness, open to emotional interaction and connection with nursing staff. In this scenario, nurses may have therefore had the opportunity to perform emotion work or emotion labour in caring for the patient. The vignette and questions were as follows:

One of the patients in your caseload is a 50 yr old woman with a chronic and terminal illness, and who has remained in your ward for over 2 weeks. She is pleasant, though is at times lonely when her family are not visiting. She seems to want to talk about some personal issues. In terms of expressing emotions while interacting with her:

Question 1: What do you do, and what circumstances might affect what you do?

Three themes emerged from the data, analysed via thematic analysis. They included Time constraints, Professional care without nurse emotional involvement *and* Nurse-Patient relationship given importance. Each theme encompassed two sub-themes, as displayed below.

Theme 1: Time constraints

Sub-theme 1: Limited time with patients

Description: There is limited time to spend with patients due to other pressing tasks. Task orientated care demands are the priority.

Indicators/flags:

Lack of time
Too busy with other jobs
Time restraints limit ability to spend time with patients
Time spent with patients is dependent on workload

Exclusions:

Nurse tries to make time for patients even when there are time constraints – code as *patient-nurse relationship given high priority*

As was suggested in responses to the previous question (Theme 5), task-orientated requirements of the job allow little interaction time to be spent with patients. Thirty-seven (20.67%) nurses described a situation coded under this sub-theme. Examples given were the responses:

'I would wish to listen and give her support. This is sometimes hard as lack of time and too many other jobs sometimes affects the quality of support/concentration' and *'Would like to be able to spend quality time with her for at least 1 hour by listening to her issue/being there for her to talk about emotions/fears she has re: her care and emotions re: leaving her family and death issues, etc. Time constraints might affect me being able to sit there for at least a ½ hour – usually too much other work to do, such as task orientated care…..working on a busy ward does not always allow for extra time with patients and is sometimes looked down upon as slacking off.'*

Sub-theme 2: Understaffing	
Description:	Time constraints may be due to poor staffing/understaffing.
Indicators/flags:	Good staffing levels enable nurses to spend more time with patients
Exclusions:	N/A

Time constraints associated with understaffing was also used to account for minimal social interaction with patients. Three (1.68%) nurses provided this response.

Theme 2: Care without nurse emotional involvement

Sub-theme 1: Emotional support and assessment of needs	
Description:	Providing emotional support by listening and talking to the patient. Assessing patient needs for referral to allied health resources or other nurses for extra support if the nurse is unable to care for patient on his/her own.
Indicators/flags:	Listening Referring to allied health services Encouraging the patient to talk about her problems Helping the patient to feel understood
Exclusions:	Nurse listening to the patient as well as disclosing his/her personal information or expressing personal emotions felt – code as *Companionship and open expression* Nurse spending as much time as possible with the patient despite a heavy workload – code as *Patient-nurse relationship given high priority*

Emotional support within the bounds of 'professional boundaries,' or 'detached concern' was the premise for Theme 2. Activities that described the first sub-theme of Theme 2 included listening and talking to the patient while maintaining emotional detachment. Overwhelmingly, 80 (44.69%) nurses suggested that they

would react to the situation at hand by providing emotionally detached support and an assessment of needs. An example of a response coded under this sub-theme was: *'Try to find time so she can talk about her issues and find ways to help her (i.e., social worker, discussion with doctor).'*

Sub-theme 2: Professional relationship

Description: No self-disclosure of personal information, giving opinions or making judgements. The interaction is not about the nurse, but the patient.

Indicators/flags:

Empowering the patient to make their own decisions and form solutions to problems based on available options

Not giving advice about personal matters

Nurse not to become emotionally involved in matters concerning the patient

Exclusions:

If no mention of non-disclosure of personal information – do not code under this theme

The discouragement of nurse self-disclosure of personal opinions and judgments was coded under sub-theme 2 of the second theme. Twenty-five (13.97%) respondents provided this explanation for emotional behaviour. One nurse stated: *'I offer her an ear to listen but I don't give advice. Sometimes I will be able to show her options but the choice is hers.'*

Theme 3: Nurse-patient relationship given importance

Sub-theme 1: Companionship and open expression

Description:

Companionship and open expression are encouraged. It is OK for the nurse to 'break down' in front of the patient.

Indicators/flags:

It is OK for a nurse to become emotional with the patient if their relationship has become close

Treating the patient as a friend

It is OK to show the patient that you are human and care by becoming emotional

Exclusions:

Listening without the nurse expressing his/her emotions – code as *Emotional support and assessment of needs*

Emotional companionship and open expression of emotions from both nurse and patient was the response coded under the first sub-theme of Theme 3, and was provided by 9 (5.03%) nurses. An example was: *'My mother died of a chronic illness so sometimes I get emotional, though this can be good sometimes as the patient sees that I am human and I do care.'*

Sub-theme 2: Patient-nurse relationship given high priority

Description: Patient is given high priority. Nurse to attend to patients as much as possible for their well-being.

Indicators/flags:

Nurse may try to have other nurses look after his/her existing patient load if he/she wants to attend to a particular patient

Nurse makes a point of spending as much time as possible with the patient despite his/her task load.

Exclusions:

N/A

Priority for the emotional care of patients was emphasised in the final sub-theme. Nurses who provided responses coded under this theme (25, 13.97%) indicated that they provided emotional care to patients whenever possible, given that it was likely that they had other commitments. An example was: *Try to make the time to talk undisturbed…Let others know you may be tied up for a while…If time does not permit, I would return at a later time.'*

The Kappa coefficient (K=.80) indicated high inter-rater reliability (Appendix 6.4).

Question 2: How much would you control expression of feelings for the patient's sake?

Theme 1: Emotional detachment: 'Faking in good faith'

Sub-theme 1:	**Complete control**
Description	Complete control of expression of feelings
Indicators/flags	As much as possible Emotions are always under control Remain neutral Put up a barrier and be very controlled
Exclusions	NA

Complete control of experienced feelings comprised the first sub-theme of Theme 1. Fifty (35.97%) nurses indicated this response.

Sub-theme 2:	**Suppression of negative emotions and expression of feigned positive emotions while remaining emotionally detached**
Description	Expression of feigned positive emotions and suppression of negative emotions, as required, in order to maintain a professional manner, while remaining emotionally detached
Indicators/flags	Nurse's feelings are not important or of interest
	Nurse to not offer opinions, show judgement, or otherwise become involved
	Being positive, supportive, and professional (while remaining emotionally detached or neutral), is desirable
	Unprofessional to be influenced by personal feelings
	Assisting the patient in being to think positively, laugh, and momentarily forget about the illness
	Gauge how patient feels about issues to avoid upsetting them
	Avoiding the expression of emotions that may negatively impact the patient
Exclusions	Mention of emotional involvement or the expression of genuine feelings – code as *Expression of genuine feelings*
	If no restrictions are indicated with respect to the expression of feelings – code as *Expression of genuine feelings*

Emotional detachment via the expression of feigned positive emotions and the suppression of negative emotions was the second sub-theme of Theme 1, and was introduced by 66 (47.48%) participants. Participants described remaining professional in their work, and avoiding the expression of their judgment or becoming emotionally involved. An example of a response coded under this theme was: *'Don't be too judgmental on any issues she raises and don't show too much emotion. Try to get her to think of good things, positives. Keep my emotion private or with other staff in discussion.'*

Theme 2:	**Expression of genuine feelings (emotional involvement)**
Description	Expressing genuine feelings of sympathy, understanding, empathy and compassion are OK, and at many times are difficult not to reveal.
Indicators/flags	Nurse does not control his/her expression of feelings Would be difficult to control expression Nurses showing the patient that he/she genuinely cares Sometimes it helps to reveal tears and sadness for the patient's situation
Exclusions	If expression of genuine feelings is not mentioned, do not code under this theme Expression of feelings with elements of emotional detachment – code as *Emotional detachment – faking in good faith: Suppression of negative emotions and expression of positive emotions while remaining emotionally detached* Complete control of expression of genuine feelings – code as *Emotional detachment – faking in good faith: Complete control*

Theme 2 centred on the expression of genuine feelings through emotional involvement of the nurse, usually for the benefit of the patient, and was introduced by 23 (16.54%) nurses (N=139). It appears that this theme presented the action least likely to be taken by a nurse in this particular circumstance when compared to the former theme. An example to represent the theme was: *'Listen and be sympathetic. I believe it is important to give empathy and show compassion. Sometimes it is necessary to cry with the patient so she can see someone is sharing burden'*.

The Kappa coefficient (K=.94) indicated very high inter-rater reliability (Appendix 6.4).

Question 3: How does it make you feel at the end of the interaction?

Five themes emerged from the dataset that were associated with responses to the third question.

Theme 1: How the nurse feels at the end of the interaction is contingent on the interaction itself

Sub-theme 1: Positive feelings

Description:

Contingent on achievement or performance of nurse, and rapport developed with the patient, as well as the type of interaction the nurse had with the patient.

Positive feelings of fulfilment, satisfaction, value and elation after a positive outcome (such as the patient being assisted by the nurse)

Indicators/flags

Positive feelings are a direct result of a positive outcome with the patient

Exclusions

N/A

Positive feelings experienced as a result of the interaction formed the first sub-theme, and was indicated by 51 (39.53%) nurses.

Sub-theme 2: Negative feelings

Description:

Negative feels such as feeling sad, guilty, dissatisfied, depressed and concerned after a negative outcome (nurse was unable to assist the patient).

Indicators/flags

Negative feelings are a direct result of a negative outcome in relation to the patient

Exclusions

N/A

At the end of the social interaction 19 (14.73%) nurses described that they would likely experience negative feelings.

Theme 2: Frustration with not being able to do more

Description:

Nurse wishing he/she could do more.

Indicators/flags:

Frustrated with the current priorities of health care

Disappointed in not being able to attend to the patient (i.e., due to time constraints)

Exclusions

If the patient's situation cannot be improved due to chronic illness, or a nurse is otherwise saddened that the patient's situation has not improved – code as Theme 1: *How the nurse feels at the end of the interaction is contingent on the interaction itself*

Feeling frustrated without mention of wanting to do more – code as Theme 1, sub-theme 2: *Negative feelings*

Nurse frustration with not being able to more than he/she would like for the patient was the focus of Theme 2, and was described by 19 (14.73%) nurses (N=129). An example was: *'Sometimes you would like do so much more and don't have the time/resources to do so.'*

Theme 3: Thoughtful and reflective of own life.

Description

Indicators/flags

Being thankful of one's own life and health

Changes made in nurse's own life due to experiences at work

Nurse's views on life influenced by experiences at work

Exclusions

N/A

In the context of Scenario One, eleven (8.53%) nurses reported feeling pensive and richer in experiences as a result of interacting with a patient. An example included: *'Thoughtful…determined to mend any family bridges. Uncertainty of life made very clear… also grateful for my own health.'*

Theme 4: Exhausted

Description
Nurse may feel emotionally and physically exhausted
Indicators/flags

Exclusions
N/A

Thirty-six (27.90%) participants indicated that they would experience exhaustion at the end of the interaction.

Theme 5: No different.

Description
Nurse feels no different regarding the situation

Indicators/flags
Nurse feels no change emotionally

Exclusions
N/A

Seven (5.43%) nurses indicated that would not feel any difference emotionally post-interaction. The Kappa coefficient (K=.84) indicated high inter-rater reliability (Appendix 6.4).

One hundred and forty four participants provided responses to the final question for the first scenario: '*Who taught you or showed you how to do this?'* Five categories were produced, including *self, upbringing, observation at work, and formal training. Life experience/Self teaching* (the first sub-category of Category 1) was

nominated by 46 (31.94%) respondents, the second sub-category labelled *Inbuilt/Instinctive* was provided by 12 (8.3%) respondents, and Category 2 labelled *Upbringing*, was introduced by 24 (16.6%) participants. The first sub-category of Category 3: *Observation at Work*, labelled *Role Models at Work* was described by 22 (15.27%) participants, while the second sub-category of Category 3, labelled *Work Experience*, was indicated by 31 (21.27%) respondents. Finally, the forth category *Formal Training* was chosen as an explanation for learnt emotion management behaviour by 9 (6.25%) respondents (N=144; many categories were coded twice, so as not to total 144).

Scenario Two presented the opportunity for nurses to describe the performance of emotion work (in the form of regulation) or emotion labour (either feigned positive emotion expression or negative emotion suppression) when providing emotional-based responses. The vignette and questions for Scenario Two were as follows:

One of the patients in your caseload is a 35 year old male with a previous alcohol addiction and a history of involving himself in risk taking behaviours. He is verbally abusive, and non-compliant, and his behaviour seems to be offend to other patients, medical and nursing staff, an issue that may need to be addressed. In terms of expressing emotions while interacting with him:

Question 1: What do you do, and what circumstances might affect what you do?

Responses to the first question 1 elicited four themes.

Theme 1: Safety: Nurse focuses on the safety needs of patients as well as him/herself

Description

Nurse priority should be to keep him/herself safe as well as maintain the safety of others by seeking assistance when required, and following protocol regarding abuse.

Indicators/flags

Consulting with other staff members

Nurses' first priority is nurse and patient safety

Safety in numbers and moral support

Exclusions

If the nurse is seeking support or referral for reasons other than patient abuse – code as *Nurse focuses on the needs of the patient: Nurse tries to give as much emotional and other practical support as possible to assist.*

The first theme described practicing safety for nurses and patients when caring for abusive patients. Responses of twenty-five (15.82%) nurses were coded under this theme by the primary coder (N=158). For instance, a safety protocol may be adhered to. Examples included: *'I would probably call for code black (personal threat) team to attend to the person'* and *'I expect a courteous behaviour for my care and won't bend to verbal or emotional abuse. If any threat of physical abuse, I won't hesitate to call for help'.*

Theme 2: Nurse's focus is on minimal care required: Priority is task orientated care.

Description

Task orientated care provided only. Nurse remains emotionally distant and/or attempts to divert the patient's attention from particular emotionally laden topics.

Indicators/flags

Minimise emotional care

Nurse emotionally distances his/herself completely

Change the subject/divert attention

Avoid/ignore the patient if he is abusive

Exclusions

Nursing distancing his/herself emotionally for the purpose of suppressing the expression of negative emotion – code as *Nurse focuses on own emotional needs in interacting with the patient: Nurse may attempt to suppress negative emotions, appear calm and professional and avoid revealing any vulnerability*

Minimal emotional interaction, in preference to task-orientated care, was the focus for Theme 2. This form of emotional behaviour that is sometimes referred to as 'blocking', was described by 20 (12.66%) nurses. The responses included, *'Give minimal nursing time,' 'Avoid interaction'* and *'Keep contact to a minimum. Try to be pleasant and efficient. Don't get personal'.*

Theme 3: Nurse focuses on own emotional needs in interacting with the patient: Nurse may attempt to suppress negative emotions, appear calm and professional, and avoid revealing any vulnerability

Description

Nurse may attempt to suppress negative emotions and avoid personal issues that may make it more difficult for the nurse to remain calm, assertive and emotionally detached

Indicators/flags

Nurse to show no fear, anger or frustration.

Appear calm, firm and efficient

Avoid perpetuating a patient's anger

Let the patient know of boundaries and inappropriate behaviour

Exclusions

Emotionally distancing completely (and not simply the suppression negative emotions) – code as *Nurse focus is on minimal care required – priority is task orientated care*

A tendency to surface act was highlighted by responses coded under Theme 3. Seventy-one (44.94%) nurses discussed hiding felt negative emotions while outlining the boundaries of inappropriate behaviour in a 'professional' manner, as required. An example included: *'Remain calm, hide my fear, and reassure other patients and staff members affected by his behaviour…try to avoid getting angry, use a clam approach to avoid confrontation'*.

Theme 4: Nurse focuses on the needs of the patient: Nurse tries to give as much emotional and other practical support as possible to assist.

Description

Nurse may attempt to engage and improve behaviour of patients by making as much effort emotionally and practically as possible.

Indicators/flags

Nurse to least make a first attempt to engage with the abusive patient

External support and referral provided if appropriate

Attempt to improve behaviour by gaining trust from the patient

Nurse expresses to the patient that he/she wants to help him

Exclusions

N/A

Lastly, Theme 4 resembled performance of emotion work to a greater degree than the previous themes. Despite an aggressive and abusive patient, responses coded under this theme indicated that nurses would make at least a first attempt at developing rapport with the patient in order to work towards improving his behaviour in the future. Nurses reported expressing emotions honestly via the development of a relationship with a patient. Examples of this type of response were: *'Try to find out why he is acting this way and if I can intervene which will improve his behaviour'* and *'Try to point out to patient the results of his actions and how he should act…I would explain myself before attempting any nursing care, depending on patients reaction to situation, continue or withdraw myself from the situation, never to turn my back on the patient and always leave the door open.'*

Forty-two (26.58%) nurses indicated this form of emotional response. The Kappa coefficient (K=.86) ndicated high inter-rater reliability (Appendix 6.4).

Question 2: How much would you control expression of your own feelings for the patient's sake?

Three themes emerged. Control of emotional expression for the patient's sake was described in terms of 1) either complete control of nurse emotional expression; 2) faking in good faith, (i.e., surface acting or to a lesser extent deep acting; or 3) voluntary emotional expression from the nurse.

Theme 1: Nurse would control expression of emotion by avoiding or ignoring the patient if necessary.	
Description	Nurse may avoid or ignore the patient if he/she feels unable to control expression of emotion
Indicators/flags	Nurse may exit the room if he/she becomes too emotional Nurse would attempt to have as little social interaction as possible Nurse may exit the situation if he/she us unable to interact with the patient in a professional manner This behaviour is perceived to be beneficial for the patient's sake as well as for the nurse's sake.
Exclusions	N/A

Theme 1 was exemplified by the statement: *'Leave the room if I felt I was unable to be professional'*, and was introduced by 8 (7.4%) nurses.

Theme 2: Emotional detachment and professionalism: Faking in good faith

Description:

There is as much control as possible of the expression of emotions that may escalate a negative situation with the patient. In controlling their emotions, the nurse may maintain a 'professional' outlook.

Indicators/flags:

Nurse would control as many inappropriate emotions as possible

Nurse suppresses negative emotions such as anger, annoyance, disgust, judgement and fear, and maintains a calm exterior

Nurse tries to remain 'professional'

Becoming emotional does not solve the problem and may make the situation worse

Showing anger and fear is viewed as a weakness

Exclusions:

If the nurse is comfortable with expressing genuine emotion – code as: *Expressing genuine emotions and care*

If the nurse is avoiding or ignoring the patient – code as: *Nurse would control expression of emotion by avoiding or ignoring the patient if necessary.*

The majority of nurses (83, 76.85%) described maintaining a professional outlook, whereby opinions and judgments of nursing staff are omitted during interactions with patients. Some nurses suggested that they would focus on inappropriate behaviour from the patient where this is necessary, while maintaining a calm and firm exterior. An example for this Theme 2 was: *'Bite my tongue, but speak firmly to him in regard to his unacceptable behaviour'.*

Theme 3:	**Expressing genuine emotions and care**
Description	Showing genuine emotion is acceptable and can be beneficial
Indicators/flags	Minimal control of emotion Display of genuine emotions such as care and concern is acceptable Nurse may reveal to the patient that he is upsetting him/her if necessary Communicating to the patient that his behaviour is inappropriate is beneficial
Exclusions	If the nurse suggests that revealing felt emotions while interacting with a patient is unprofessional – code as *Emotional detachment and professionalism– faking in good faith* If the nurse suggests that revealing felt emotions while interacting with a patient may escalate into a negative situation - code as *Emotional detachment and professionalism– faking in good faith*

Seventeen (15.74%) nurses indicated that they would express genuine emotions for the patient's sake. The expression of emotional behaviour described resembles emotion work (particularly regulation performance), whereby a nurse may either feign and/or express genuine emotion in the process of developing rapport (as part of a meaningful relationship) with the patient. Examples of the behaviours reported included: *'I wouldn't yell or abuse him, but I would state that he is upsetting me and making my job difficult…I would be honest and assertive'* and *'I may express my displeasure and disappointment not only for the patient's sake but for other patients forced to witness his behaviour.'*

The Kappa coefficient (K=.98) ndicated very high inter-rater reliability (Appendix 6.4).

Question 3: How does it make you feel at the end of the interaction?

Four themes emerged from the dataset. Seven (6.4%) nurses indicated that how they would feel at the end of the interaction was dependent on the outcome, and offered no additional information. However, 53 (48.6%) suggested that they may experience negative emotions, while 23 (21%) predicted they could experience positive emotions

as a result. The types of emotions suggested are indicated below under the relevant themes.

Theme 1: Contingent on the outcome

Sub-theme 1:

Description

The way the nurse feels at the end of the interaction is dependent on the outcome

Indicators/flags

Depends on the outcome

Exclusions

N/A

Sub-theme 2: Negative feelings

Description

Negative feelings as a result of the nurse not being completely satisfied with the outcome

Indicators/flags

Fatigue

Stress

Frustration

Uneasy

Angry

Exclusions

N/A

Sub-theme 3: Positive feelings

Description

Positive feelings resulting from the nurse feeling satisfied with the outcome

Indicators/flags

Satisfied

Proud

Fine

Exclusions

N/A

Feeling uncomfortable and unsafe due to experience of abuse from patients comprised Theme 2, introduced by 11 (10.9%) nurses (N=109). An example of a response was: *'Safe for myself if he has quietened down'*.

Theme 2:	**Coping with abusive behaviour**
Description	The nurse asserts not being comfortable with being abused by the patient
Indicators/flags	Abusive behaviour from a patient may cause a nurse to feel unsafe and upset Nurse may be concerned about dealing with abusive behaviour and about ensuring that other patients are not compromised
Exclusions	Nurse may feel frustrated about having to care for abusive patients in light of the system and working environment – code as *Frustrated with the system*

Four (1.2%) nurses indicated they would feel like avoiding a patient or would otherwise feel like detaching themselves emotionally, following the interaction depicted in the second scenario.

Theme 3:	**Minimising patient interaction**
Description	The nurse feels like avoiding the patient and becoming detached
Indicators/flags	Nurse will avoid the patient if possible The nurse feels like becoming detached from the patient
Exclusions	N/A

The second scenario elicited some negative emotions from respondents (11 nurses, 10.059%) with regard to feeling frustrated with the working environment and the health system at large. Examples included: *'Angry that myself and other staff have to be subjected to this type of person…that yet again I was abused at work'* and *'Probably frustrated because I doubt behaviour guidelines will be effective. Hope he's only a day patient!'*

Theme 4:	**Frustration with working conditions**
Description	The nurse may feel frustrated with the system and the working conditions in relation to the care of abusive patients
Indicators/flags	Nurse feels he/she should not have to care for abusive patients
Exclusions	Nurse being frustrated with a negative outcome from interacting with the patient – code as Contingent on the outcome: Negative feelings.

The Kappa coefficient (K=.95 indicated very high inter-rater reliability (Appendix 6.4).

Explanations for emotional responses provided with regard to emotional interaction skills taught or learned, were categorised into four categories. The categories included *Self, Upbringing, Observation at work, and Formal/Work-based training. Life experience/Self-teaching* was the first sub-category of Category 1, and emerged from responses given by 35 (30.43%) nurses. *Inbuilt/Instinctive* was the second sub-category of Category 1 selected by 14 (12.17%) participants. The second category, *Upbringing*, was indicated by 9 (7.83%) respondents, while the sub-categories *Role models at work and Work experience* (sub-categories 1 and 2 of Category 3) were chosen by 22 (19.13%) nurses. *Formal/other training*, a subcategory of Category 4, elicited responses from 10 (8.69%) nurses, followed by *Work-based training*, the second sub-category of Category 4, which was prompted by 3 (2.61%) responses (N=115; many categories were coded twice, so as not to total 115).

The third scenario explored the emotional behaviours and interactions of nursing staff toward nursing managers (in place of patients), with respect to rostering complications and other apparently neglected occupational concerns. Scenario three (below) also incorporated the same four questions as did the previous two scenarios. The opportunity for the performance of both emotion labour and emotion work in light of interactions with superiors was therefore investigated (i.e., do nurses perform emotion labour and/or emotion work when interacting with superiors?). Four themes emerged when the data were analysed. Detailed descriptions of each theme are provided below.

Scenario Three:

Your immediate nursing manager appears to be juggling rosters, staffing and budgets. In doing so, he/she does not seem to be taking into account your previous requests to be rostered on for particular shifts, or any other concerns raised. The ward you are working on also appears to be understaffed. Talking to the manager is difficult as he/she is always busy. In terms of expressing emotions while interacting with him/her:

Question 1: What do you do, and what circumstances might affect what you do?

Theme 1:	**Communication**
Description	Nurse attempts to approach and communicate with the manager when a problem arises in order to express concerns about shifts and understaffing.
Indicators/flags	Make an appointment at a time convenient to the manager for a meeting Leave a note Explain situation to manager
Exclusions	Nurse describing the manner in which he/she would communicate to the manager – code as *Style of communication*

In order that nurses have the opportunity to explain their situation and make specific requests the initiation of communication between the nurse and the nurse manager in the first instance, was encouraged by 79 (57.97%) nurses (N=152). An example was: *'Try to discuss above with the manager or leave the manager a note to do the same'*.

Theme 2:	**Style of communication**
Description	Nurse expresses how she would go about communicating to the manager
Indicators/flags	Nurse to remain polite, assertive, calm, and open, without getting emotional Showing negative emotion will not solve the problem Nurse may tread very carefully depending on manager's reactions to the style of communication
Exclusions	N/A

Responses that resembled negative emotion suppression were coded under Theme 2. An un-penetrating exterior whereby the nurse mirrors the positive emotional behavioural expression of the supervisor so as to avoid negative emotion conflict, was described by 25 (16.44%) participants.

Theme 3:	**Compromise**
Description	
	The nurse attempts to compromise with the manager to reach a solution together, or may compromise with other staff in order to create a solution
Indicators/flags	
	Nurse may swap shifts with other staff members
	The nurse may give the manager the benefit of the doubt and sympathise with the nurse manager's position
	Teamwork on the ward
	The nurse may work with the manager to solve the problem
Exclusions	
	N/A

Twenty-five (16.44%) nurses indicated that they would attempt to meet the manager 'half-way' by trying to view the situation from the manager's perspective and by compromising in order to bring about a mutually desired solution. An example representing this theme was *'I would explain my concerns and try to work out some agreement between us…Offer alternatives to roster if possible. Might even offer to do an extra shift'*.

Theme 4:	**Perception of nurse manager's performance**
Description	Perception of the nurse manager's performance in their role may affect how the nurse responds to the situation
Indicators/flags	Managers must appear as though they are making time for staff and are competent in their role In terms of performance, if a nurse manager fails to meet a nurse's expectations, nurse organisational commitment may be reduced. Specifically, a nurse may feel that he/she is worthy to call in sick, look for another job, take the complaint to a higher level in the organisation, move to a different area, or become disinterested in his/her work. Following a negative perception of a nurse managers' performance in their role, which may include previous poor communication between the nurse and the manager, nurses may avoid engaging with nurse manager.
Exclusions	If the nurse perceives the nurse manager to be doing his/her best in spite of limitations – code as *Compromise*

Nurse perception of their superior's management performance (i.e., competency, and making time for staff concerns) influenced whether nurses felt validated to be absent from work, file a complaint or, leave the nursing area or leave the organisation. Nurse perception of their nurse manager's leadership style also appeared to coincide with the experience of disillusionment in their work. The issues coded under Theme four were initiated by 23 (15.13%) responses. Examples were: '*Managers need to know what is going on due to staffing and shift issues as people will leave,' 'Go higher up,'* or *'Become disinterested in my work'*.

The Kappa coefficient (K=.83) indicated high inter-rater reliability (Appendix 6.4).

Question 2: How much would you control expression of your own feelings?

The second question elicited four themes, labelled *Complete Control, Limited Control, Suppression of 'unprofessional' emotional expression* and *Mirroring emotional expression.*

Theme 1:	**Complete control**
Description	Control of emotional expression for the majority of the time
Indicators/flags	As much control as possible
Exclusions	Responses coded under Theme one, emerging sixty-three (42%) times in the data set, indicated almost complete control of emotional expression (N=150).
Theme 2:	**Limited control**
Description	Limited control of the expression of emotion
Indicators/flags	Very little control or no control of emotional expression Difficult to maintain control of emotional expression Nurse's personality does not leave room for control of emotional expression
Exclusions	Theme two described limited control of genuine emotional expression when interacting with their manager in the context of the third scenario. The issue emerged twenty-five (16.6%) times in the dataset. An example was: *'If I felt strongly about a matter I would express my feelings more evidently'*.
Theme 3:	**Suppression of 'unprofessional' emotional expression**
Description	The nurse may control negative emotions that are frowned upon by the organisation. The nurse may attempt to reach and understanding with the nurse manager via the expression of emotions that that are accepted by the organisation
Indicators/flags	Control of negative emotions such as anger, frustration and disappointment Nurse may remain calm and assert his/her concerns while controlling negative emotion Nurse may try to remain 'professional' and positive in interactions
Exclusions	If no information is provided with regard to how or for what reasons emotional expression would be controlled – code as: *Complete control*

Nurses reported that they would suppress what is regarded to be 'unprofessional' or to be direct negative emotional display (emotions that are classed as inappropriate, according to organisational display rules) when interacting with their superior. This notion was identified fifty-three (35.3%) times in the dataset. An example of a response coded under Theme 3 was: *'I feel the anger expressed by the nurse manager is inappropriate. It takes all my inner strength to keep my cool around her. I detest being spoken to (mostly not spoken to) in this manner by someone in authority. She is totally unprofessional'.*

Theme 4:	**Mirroring emotional expression**
Description	Nurse emotional expression is a reflection of the nurse manager's emotional expression in interacting with the nurse.
Indicators/flags	Regarding emotional expression, if the nurse manager is viewed as 'unprofessional' by the nurse, the nurse may not feel obliged to remain 'professional' The nurse may not control emotional expression as a last resort if he/she is not feeling heard or has been pushed to his/her limits
Exclusions	N/A

Theme four described that nurses may mirror the emotional behaviour of their manager, in the sense that the emotional behaviour expressed by the nurse is a reflection of their manager's emotional behaviour towards the nurse. If a nurse manager was expressing negative emotions toward a nurse, a nurse may feel validated to respond with the same emotional behaviour. Some references to the mirroring of emotion-based behaviour was identified nine (6%) times in the dataset. A response coded under this theme was: *'Depends on the manager's attitude. My expression would be a reflection of the attitude shown to me'.*

The Kappa coefficient (K=.99) indicated very high inter-rater reliability (Appendix 6.4).

Question 3: How does it make you feel at the end of the interaction?

Eight themes emerged from responses given to the third question of Scenario three.

Theme 1:	**Valued staff member**
Description	Nurse feels like an important member of staff
Indicators/flags	Nurse feels listened to The nurse would feel needed and valued in his/her role
Exclusions	N/A

Theme 1 (indicated by four (3.6%) nurses) described that a nurse may feel like a valued member of staff after the interaction if his/her concerns were addressed.

Theme 2:	**Scapegoat**
Description	Negative feelings associated with the manager's performance in the role
Indicators/flags	Nurse may be angry that the nurse manager appears to be compromising the working life of his/her staff as a result of poor management Nurse may be fearful of a similar situation occurring next time Nurse may be concerned that the manager would make working life difficult for him/her
Exclusions	Negative feelings that are not specifically directed toward the manager – code as *Feelings felt: Negative feelings, (e.g., angry)*

Theme two described that a nurse may hold ill feelings toward their manager subsequent to a perception that the manager is not competent in his/her role. This may in turn, negatively affect the working life of nursing staff. These ill feelings include a fear that if the nurse objects to the manager's conduct, that the current situation maybe become worse for the nurse. Responses coded under this theme appeared

seven (6.36%) times in the dataset. An example was: *Very angry if I felt I was being victimised because the manager was too busy to do the job properly'.*

Theme 3:	**Satisfied with support**
Description	
	Nurse feels satisfied that he/she can approach the manager with concerns
Indicators/flags	
	Adequate communication between nurse manager and staff
Exclusions	
	N/A

Nurses who provided responses under Theme 3 (12, 10.9%) discussed that a feeling of satisfaction may directly result from the feeling that they can comfortably approach their manager (in addition to colleagues) and work towards a resolution in the context of the third scenario. An example was: *'Relieved after speaking to the manager, calmer after talking to others that understand…it's good to communicate freely with colleagues'.*

Theme 4: Depends on the outcome

Theme 4 focused on positive or negative emotions contingent on the social interaction between nurse and manager.

Sub-theme 1: Positive outcome

Description

Nurse is pleased that the situation is resolved

Indicators/flags

Exclusions

N/A

Seventeen (15.45%) nurses suggested that they would experience positive emotions should their concerns arising from the situation be resolved.

Sub-theme 2: Negative outcome

Description

Nurse may be disappointed that the situation is unresolved

Indicators/flags

Exclusions

If feeling words as mentioned in isolation and are not associated with an outcome – code as: *Feelings felt* 'Exhausted' or 'worn out' – code as: *Exhaustion*

Fifteen (13.64%) nurses suggested that they would experience negative emotions should their concerns arising from the situation not be resolved.

Theme 5: Exhaustion

Description

Nurse is emotionally and physically exhausted following the interaction

Indicators/flags

Exclusions

N/A

Seven (6.4%) respondents indicated they would experience exhaustion as a result of interacting with their manager.

Theme 6: Concerned about nurse working conditions and working under the health system

The final theme reflected nurses' experience of disillusionment with regard to working conditions (i.e., non-social or inconvenient hours nurses may be expected to work), shiftwork and work within the health system, exacerbated by interactions with their manager. The final theme comprised two sub themes.

Sub-theme 1: The health system and management priorities	
Description	Nurse may feel disillusioned with the health system and its impact on management priorities. The nurse may feel undervalued and easily replaced
Indicators/flags	Nursing staff perceive that they are given low priority, and that budgets are given high priority Nurses not given credit or positive feedback for filling staff shortages Nurses may feel undervalued
Exclusions	N/A

Sub-theme one of Theme Six depicted nurses' expressed disappointment with the perceived business model of health care, which was described as predominantly focused on budgeting and other management priorities, in lieu of staff well-being. If queries or concerns were perceived by the nurse to be disregarded by management, a greater likelihood of feeling disillusioned in his/her work was described as the result. References to the issues coded under the sub-theme emerged on ten (9%) occasions. Examples were: *'Feeling like we bend over backwards to help the 'team' without senior acknowledgement or thanks'* and *'frustrated with upper management. Budgets, not patients or staff, are priorities...disillusioned with health system and its decline'*.

Sub-theme 2: Shift work

Description

Nurse expresses desire to obtain a 'normal' 9-5 job.

Indicators/flags

Exclusions

N/A

Sub-theme two of Theme six described that frustration with shiftwork would be experienced at the end of the interaction described in Scenario Three. In this context, nurses described a desire to exit their work in preference to a 'normal' 9-5 job. Issues relating to this theme emerged on twelve (10%) occasions. An example representing this sub-theme was: *'Sometimes I feel like I am in a no win situation, where the only situation is to get a 9-5 job so that I do not have to worry about rosters…'*.

The Kappa coefficient (K=.84) indicated high inter-rater reliability (Appendix 6.4).

The accounts provided for the emotional behaviours expressed and emotion management skills (learned or self-taught) used when responding to managerial staff included *Self, Upbringing, Observation at work* and *Work-based training.* The first sub-category of Category 1 comprised 27 (25.23%) responses, while 8 (7.48%) responses encompassed a second sub-category of skills that were self-taught. Category 2, labelled *Upbringing* was described by 21 (19.62%) participants, the first sub-category of Category 3, named *Observation at work*, explained emotional management behaviours for 18 (16.82%) nursing staff, the second sub-category, representing emotional behaviours learned over the course of a nurses' work experience was described by 22 (20.56%) respondents, while the third sub-category, *Experience with Rostering*, was provided as an explanation for 7 (6.54%) nurses. Finally, formal and work-based training enabled 4 (3.74%) nurses to manage emotional behaviour.

CHAPTER SIX
DISCUSSION OF STUDY TWO

6.2.1 Introduction

This study was both a replication and extension of the first study. It sought to investigate, within the private hospital context, the effects of nurse emotion labour and emotion work performance, respectively, on individual and organisational level outcomes in light of other dispositional and work environment factors. These emotion-based concepts, previously neglected in the literature, have never been tested on South Australian hospital nurses. This study examined both emotion labour and emotion work performance in the same study so that the relative importance of the two constructs could be examined in the same statistical models. The study also incorporated both quantitative and qualitative methodological designs so that emotion labour and emotion work performance could be examined from different perspectives.

The questionnaire package was tailored to the hospital nurse workforce via consultation, a pilot study, as well as the findings of the first study. A modification of the questionnaire included the focus of emotion work performance to the work domain in lieu of both the work and non-work domains. When focused on the work context, stronger links were observed between performance of emotion work and individual and organisational level outcomes than in the previous study.

Three vignettes were included in the questionnaire in order to depict scenarios in which nurses may perform different forms of emotion labour or emotion work in the work context. The purpose of the vignettes was to elucidate the types of emotion labour and emotion work behaviours that nurses may perform in different contexts as well as the reasons for the performance of these behaviours. The analyses allowed the researcher to determine a baseline level of emotion management knowledge the nursing sample currently held, and whether performance of emotion work was commonly available to nursing staff to utilise as a resource.

As with the first study, this study contributed to the literature by studying the risk factors and resources likely to influence the occupational health of Australian hospital nurses, although in a private hospital context. In addition, autonomy and intention to leave were added to the original questionnaire. Autonomy and intention to

leave are work environment factors that are essential to nurse well-being and retention (Duffield & Franks, 2002; Duffield & O'Brien-Pallas, 2003; Johnson *et al.*, 1995; Johnson & Spector, 2007; Skilbeck & Payne, 2003). It is anticipated that via the acquisition of autonomy, health outcomes for nurses may be improved, either directly or indirectly. For example, if authority is granted to nurses to perform tasks that they find rewarding, this autonomy is considered to be a resource. Having this resource is likely to lead to nurse well being. In line with COR theory, sufficient autonomy would assist an employee to gather additional resources (i.e., via resource investment and subsequent resource gain) that may be used to either offset or prevent the negative effects engendered by heavy work demands on the job.

Nurses' intention to leave was also measured because it was considered to be a useful conceptual indicator of either depleted resources or a threat of impending resource loss sufficient to encourage employees to discontinue their employment. Intention to leave is therefore not only an indicator of suspected retention levels of an organisation; it may also be a symptom of a greater problem with regard to an imbalance between demands imposed on individuals and available resources for employees to utilise during their employment. However, it should be noted that intention to leave may be caused by factors apart from those listed above.

The study also sought to examine the factor structure of the Copenhagen Burnout Inventory (CBI) among a private hospital nurse sample. Previous research has not examined the factor structure of the CBI among nurses in isolation from other occupational groups. Support for a three-factor structure was maintained among the private hospital nursing population (Kristensen *et al.*, 2005).

Finally, as in the first study, this study applied the principles of the Conservation of Resources Theoretical Framework to identify the resources and demands relevant to the nursing profession for the purpose of proposing recommendations for workplace reforms that might enhance occupational health and productivity.

6.2.2 Interpretation of the findings

As in the first study, an exploratory analysis was conducted to determine whether the predictive power of *emotion labo*ur differed from *emotion work.* Similar to the first study, the findings of this study generally supported the notion that the predictive power of *emotion labour* differed from *emotion work. Emotion labour* performance was found to be a risk factor for negative outcomes as well as negatively associated with positive outcomes, whereas *emotion work*, particularly in the form of *companionship,* appeared to be a resource and appeared to reduce the impact of negative outcomes and was associated with positive outcomes.

Hypotheses 1 predicted that emotion labour and emotion work would explain variance in all of the outcomes studied over and above other dispositional and work environment factors. On the whole, this prediction was supported. As in the first study, hierarchical multiple regressions revealed that, the performance of feigned positive emotion expression was not a risk factor for any of the outcomes studied. This supports Brotheridge and Grandey (2002) and Zapf and Holz (2006) in the sense that the requirement to display positive emotions was not directly related to emotional exhaustion, although was likely to be mediated by emotional dissonance. In the sense that suppressing negative emotions is equivalent to emotional dissonance, suppressing negative emotions was a risk factor for the development of stress and work-related burnout, as was found in the first study and in the research conducted by Mann and Cowburn (2005).

In relation to emotional exhaustion, the results support Abraham (1998), Grandey (2003), Heuven and Bakker (2003), and Tschan, Rachat and Zapf (2005), although the relationship observed between suppressing negative emotions and work-related burnout was less consistent with the findings of Brotheridge and Lee (2002). The suppression of negative emotions also significantly influenced intention to leave. Although few studies have examined the relationship between emotion labour requirements and intention to leave, previous research supports that intention to leave is likely to follow from job stress and emotional exhaustion (Duffield *et al.*, 2007; Duffield & O'Brien-Pallas, 2003; Spector & Jex, 1991).

Emotion work performance in the form of *companionship* was associated with lower job stress and patient-related burnout. Performance of *emotion work* in the form of *companionship* may play a key role in the reduction of negative consequences that are associated with social interaction among the nursing workforce. However, in contrast to the first study findings, *emotion work* performance in the form of *regulation* was not a significant predictor of any of the outcomes studied, despite being linked with other psychosocial factors, such as family to work and work to family conflict.

Hypothesis 2 predicted that *emotion labour* performance would more likely explain variance in outcomes than *emotion work* performance. This was proposed because emotion labour may be viewed as an organisational requirement or demand, and unlike emotion work performance, is not performed for the benefit of individual patients. Both the *suppression of negative emotions* and emotion work performance in the form of *companionship* were risk factors to job stress, although *suppressing negative emotion* had a stronger influence on stress than *companionship* performance. In the absence of previous research that has directly compared suppressing negative emotions and *companionship* performance on job stress, one may draw on the principle of COR theory that demands of the workplace are more likely to have a stronger influence on negative outcomes than the availability of resources, to account for these findings. These results may explain the stronger standardised coefficient values found for variables representing stressors or demands compared with variables considered to be resources. However, whereas *companionship* performance alleviated the impact of patient-related burnout, surprisingly, *suppressing negative emotion* did not have an influence of patient-related burnout. Overall, although *suppressing negative emotions* had a greater effect on the outcomes studied than *companionship* performance, neither had a significant influence on the majority of the outcomes. Therefore, Hypothesis 2 was only partially supported.

Hypothesis 3, predicted that *emotion work* performance would likely lead to positive outcomes, given the voluntary nature of *emotion work* performance, whereas *emotion labour* performance, as a job requirement, would contribute to the development of negative consequences. This hypothesis was partially supported. *Suppressing negative emotions* (emotion labour) was generally revealed to be a risk

factor for the development of negative outcomes, whereas *companionship* performance (emotion work) served to potentially alleviate negative consequences, such as patient-related burnout and stress, as anticipated by Strazdins (2000).

An important fact to note, however, is that in this study, the emotion work construct items were phrased to indicate patient-specific interactions rather than interactions with co-workers or supervisors. It is therefore not surprising that emotion work performance was found to be a key risk factor for patient-related burnout over and above other psychosocial variables. Similarly, the strength of the direct effects between emotion work performance and outcomes such as low job satisfaction or personal or work-related burnout, may have been significantly reduced due to the wording of emotion work items.

For these reasons, *emotion labour* performance appears to continue to operate as an organisational demand that could potentially lead to psychological strain and poor staff and patient satisfaction, in line with previous research (Abraham, 1998; Aitken *et al.,* 2001; Ashforth & Humphrey, 1993; Brotheridge & Lee, 2002; Grandey, 2000; Hochschild, 1983; Mann, 2005; Mann & Cowburn, 2005; Morris & Feldman, 1996). Performance of *emotion work*, on the other hand, appears to operate as either an organisational resource for nurses, or has no significant effect on the consequences of nursing work.

An explanation for the observation of non-significant associations between emotion labour and emotion work factors and the studied outcomes is that, for the private hospital sample, emotion labour and emotion work may hold less of an influence on the studied outcomes than other psychosocial factors. It may also be the case that certain demands and resources that appear to be of value to public hospital nurses may not apply to private hospital nurses. Further, there may be differences between the public and private hospital system with regard to organisational display rules and in the acquisition and use of emotion management styles. Differences between the public and private hospital samples must not be overlooked.

As suggested earlier, one plausible explanation for these results is that nurses may have limited opportunity to interact with patients, in line with Corbin (2008),

James (1989, 1992) and Robichaud, (2003). Indeed, the previous literature reports that nurses may work under severe time constraints with little possibility to do more than task-orientated care, or alternatively, the emotional care that nurses may perform could easily remain unnoticed (Staden, 1998).

Following on from the explanation above, a second explanation for the findings is that private hospital nursing staff may not be strongly affected in either a negative or positive direction by performance of either *emotion labour* or *emotion work.* Nurses may perceive emotion labour or *emotion work* performance to be another demand of nursing work that is not as essential to their overall occupational health as other demands of nursing work. However, given that performing *companionship* was observed to alleviate the impact of negative health outcomes, relative to other psychosocial variables in this study as well as in the first study, this explanation does not appear to be convincing.

In relation to emotion work, a number of explanations may be advanced to explain the finding that *regulation* performance did not hold a strong influence on any of the outcomes. One explanation is that as a whole, nurses may not generally choose to engage in tasks that involve emotional interaction. Similarly, when faced with a situation in which an emotive interaction may be required, nurses may be more likely to suppress emotions and/or use blocking behaviours in order to avoid emotional contact with patients. This may be due to fewer opportunities to utilise other emotion management styles [e.g., low resources, time constraints, lack of interaction autonomy (Zapf *et al.*, 2001), or the existence organisational display rules that prohibit use of varied emotion management styles (Rafaeli & Sutton, 1987)].

At the same time, it is evident that some *emotion work* performance did occur. However, it also appears that nurses must go beyond the effort required or otherwise must acquire additional resources in order to perform emotion work in lieu of emotion labour. The significant correlation found between autonomy and emotion work (regulation) in this study indicates that some nurses who had acquired greater autonomy were more likely to choose to perform emotion work. Moreover, autonomy interacts with *emotion work (companionship)* performance to offset the negative impact of patient-related burnout that may result from working directly with patients.

Adequate resources (i.e., social support from supervisors and autonomy) may allow nursing staff the opportunity to select emotion management styles that may play a key role in reducing the development of negative individual and organisational level outcomes. As seen in the first study, the alternative is the potential for the development of positive outcomes, such as job satisfaction.

Does increased performance of emotion labour lead to an increase in work-related burnout? (Hypothesis 4)

Hypothesis 4 predicted that an increase in *feigned positive emotion expression* is linked to an increase in *suppressing negative emotion*, and that given the overall increase in *emotion labour* performance, an employee may, in turn, develop work-related burnout. This hypothesis was supported. Nurses who performed one type of emotion labour requirement were more likely to perform another. It is likely that this finding is due to the fact that both *feigned positive emotion expression* and *suppressing negative emotions* may involve surface acting as well as the experience of emotional dissonance (Abraham, 1998; Zapf & Holz, 2006).

Although bi-variate correlation analysis indicated that *feigned positive emotion expression* was linked to work-related burnout, path modelling showed that *feigned positive emotion expression* was indirectly related to work-related burnout once negative emotion suppression was set as a mediator in the equation. It appears that an increase in *negative emotion suppression* is aligned with an increase in emotional dissonance. Zapf and Holz (2006) observed similar results. They found an indirect relationship between *feigned positive emotion expression* and emotional exhaustion using path analysis, once emotional dissonance was set as a mediator. In addition, the responses made by nurses to the vignettes in relation to the issue of feigned emotion indicated that *feigned positive emotion expression* is often coupled with *negative emotion suppression.*

Examination of the factor structure of the Copenhagen Burnout Inventory among private hospital nurses (Hypothesis 5)

To test Hypothesis 5, Confirmatory Factor Analysis (CFA) was used to analyse the factor structure of the Copenhagen Burnout Inventory. Hypothesis 5 was supported given that the best fitting measurement model to the dataset comprised 3 independent

and distinct variables representing personal, work and patient-related emotional exhaustion. This result was found in spite of a high correlation between personal and work-related burnout that would indicate that the CBI contains only two factors (a combined personal and work-related exhaustion factor and a patient-related exhaustion factor). A strong standardised relationship coefficient was observed between personal and work-related burnout when a three-factor measurement model was tested, similar to the strong associations observed in Winwood and Winefield's (2004) study. A test of the differences between the two and three-factor models was therefore performed, with the three-factor model having stronger empirical support (Kristensen *et al.*, 2005; Winwood & Winefield, 2004).

In this study, the dimensions of the CBI had similar statistically significant associations with psychosocial and outcome variables as the dimensions of the Maslach Burnout Inventory (MBI) and the Oldenberg Burnout Inventory (OLGI) in previous research. Due to satisfactory psychometric properties, the CBI therefore appears to be a useful tool for measuring burnout as essentially an exhaustion or fatigue construct. The CBI could therefore provide a useful alternative for the measurement of emotional exhaustion among healthcare workers.

The results of the thematic analysis of the vignettes validated the quantitative-based findings of both the first and second studies, particularly with regard to the finding that nurses performed more emotion labour than emotion work. For example, time constraints, understaffing, and safety procedures were factors reported by the private hospital sample to explain why it was difficult to cope with the emotional side of their jobs (Corbin, 2008; Duffield & O'Brien-Pallas, 2003; James, 1989; Staden, 1998). The finding that nurses have limited time to spend with their patients may be the reason they perform more emotion labour instead of emotion work. In addition, analysis of the themes revealed that the medical-based notion of 'detached concern' otherwise known as 'professional boundaries,' is still relevant to the nursing workforce. Many nurses made reference to 'professional boundaries' as a reason why they engaged in surface acting in lieu of other emotion management strategies.

Similarly, the themes that resembled emotion work performance indicate that nursing staff will perform emotion work if provided the opportunity. This finding supports James (1989) and Bolton (2000). In this sense, emotion work performance may be viewed as a resource by nursing staff. Some nurses indicated frustration with not being able to provide patients with sufficient emotional care on account of time constraints and other organisational and structural barriers. These findings are consistent with similar claims reported by Griffith (2008).

Respondents reported that nurse training in emotion management is very limited. The majority of nurses indicated that acquired skills in emotion management were either self taught via life experience, or learned on the job via modelling. This finding supports Gray and Smith (2009) and Humpel and Caputi (2001). They purport that apart from a base level of training provided in a psychiatric component of tertiary education in nursing, very little formal training in emotion management is provided to nurses.

The final vignette was focused on the relationship between nurses and their manager. Private hospital nurses described mirroring of the emotions of their supervisor. For example, many nurses reported that they would suppress their emotions if they felt that their managers were suppressing their emotions during nurse-manager interactions. It is therefore important that nurse managers be aware that nurses will model their behaviour and that this could in turn, have an impact on nurse team culture. Further, nurse turnover is often directly linked to the relationship between the nurse and his/her manager (O'Brien-Pallas, Duffield & Hayes, 2006; Taunton *et al.,* 1997). Nurses described adequate communication, teamwork, compromise, feeling supported and as though one is contributing to a team, and the perception that a nurse manager is performing well, as characteristics that were fundamental to nurse retention.

Finally, the purpose of the final question was to detect either any aspect of the nursing working environment that the researcher had overlooked or to emphasise certain aspects of nursing work. The researcher was alerted to aspects of nurse occupational health that were neglected or omitted from this study, such as bullying

and harassment among the nursing fraternity, and the conception of feeling undervalued. The themes that emerged from this dataset were similar to the themes that emerged in the public hospital sample. In addition, validation of the quantitative results, as well as a focus on some of the broad stressors of nursing work that have been previously identified in the literature was achieved. For example, understaffing, poor working conditions, low social support, and low monetary reward were the stressors indicated by this sample, supporting previous research (Dorrian *et al.*, 2006; Duffield & O'Brien-Pallas, 2003; Duffield *et al.*, 2007; Tilley & Chambers, 2003).

6.2.3 Performance of emotion work and emotion labour in this study compared with other samples

Inspection of the means for *emotion labour* and *emotion work* between this study and previous research (Best, Downey & Jones, 1997; Brotheridge & Lee, 2003; Strazdins, 2000) indicates that emotion labour and emotion work were performed by private hospital nurses to a slightly lesser degree in this study than what is reported in the literature (Appendix 6.1). *Feigned positive emotion* and *regulation* were performed to a lesser degree in this sample by comparison to the public hospital nurse sample. One explanation for the low retrospective reports of *emotion labour* and *emotion work* performance could be that nurses feel they have not performed *emotion labour* or *emotion work* often, when in fact they have. Behaviour that becomes habitual, such as automatic emotion regulation may be overlooked because it appears to be less effortful a proportion of the time (Johnson & Spector, 2007).

With respect to the difference between public and private hospital nurses, a higher amount of negative emotion suppression on the part of private hospital nurses may be related to the ever-growing business model of health care, accompanied by the expectation that 'clients' paying for private healthcare be exposed to 'excellent service'. This circumstance may place added pressure on private hospital nursing staff to maintain strict compliance with organisational display rules as compared with public hospital nurses.

Other explanations and postulations regarding emotion management for nursing staff that were outlined in Chapter 4.2 (Discussion) also apply with respect to this study.

6.2.4 Methodological considerations

This study served as a replication and extension of the first study and utilised a cross-sectional design. The use of a cross-sectional design may have limited the interpretation of the study results with regard to direction of causality of effects. As noted in section 3.2.3 in relation to the first study, there was little opportunity to conduct a longitudinal or observational-based (i.e., objective measures and/or peer ratings) study.

In addition, the results may have been influenced by common method variance due to the nature of the cross-sectional study design. The researcher was alert to the potential of common method variance as a potentially influential factor. The researcher took particular caution with respect to the use of social and affective measures, given that these measures are deemed more likely to be associated with common method variance when compared with measures associated with organisational work design (Spector *et al.*, 2000; Zapf, 2002). The second study design measured and controlled for the effect of negative affectivity (i.e., via trait anxiety). Moderate to strong correlations were observed between negative affectivity and outcome variables such as stress and work-related burnout, although these results should be interpreted with caution, given that the number of moderated effects found could have been due to chance alone.

An important methodological concern in occupational stress research, and particularly in this research, is the choice of 'stress' measure that is used. Given that items using the word 'stress' were found to be associated with both stressors and strains in Jex, Beehr and Roberts' (1992) study, Jex, Beehr and Roberts (1992) argue that if items of scales use the word 'stress', there is some potential for measures to be confounded. This is because an occupational stress researcher may not be certain about how respondents have construed use of the word 'stress' when completing a questionnaire. The word stress itself was not used in the Nursing Stress Index (NSI).

However, the words ‘pressure’ and ‘stressor’ were used interchangeably. The items of the NSI were most likely to represent stressors in a present tense rather than as ‘pressure’ experienced as a response to job characteristics (or strain). Despite this, the researcher cannot be certain whether participants were referring to stress or strain when responding to items. As a result, the use of a stress measure that defines stress as a stressor rather than a response may have affected the interpretation of the results in the first and second studies. Consequently, methodological difficulties such as these could be improved in a further study.

In addition to ensuring that the content validity of the measures chosen was acceptable, it was also preferred that the measures chosen were validated. The two measures that were added to the questionnaire package, namely, autonomy and intention to leave, were not previously validated. It is essential then, that this weakness in the current study is taken into account in interpreting the results. However, the internal consistency estimates for the scale were in the order of 0.67-0.68, an acceptable range, notwithstanding the fact that the small number of scale items may have accounted for a smaller internal consistency coefficient value.

With regard to work environment factors that were omitted from this study, a limitation is that emotion work performance among work colleagues and supervisors, as studied by Strazdins (2000), was not examined in this study. If these factors had been included in this study more emotion work performance may have been reported overall. As a result, stronger links between emotion work performance and outcomes such as stress, work-related burnout, job satisfaction, affective commitment and intention to leave may have been observed.

Another limitation of the research was the limited amount of control that the researcher had in distributing the questionnaires. The Directors of Nursing at three out of the four hospitals sampled had preferred to distribute questionnaire packages throughout the private hospitals they manage themselves. One Director of Nursing managed the distribution of questionnaire packages closely and attempted to encourage those who had not yet completed the questionnaires to complete them. In addition, the questionnaire packages were returned by post to the researcher via the Director of Nursing. Therefore, the Director of Nursing in this case may have been

aware of who had completed the questionnaire packages. Anonymity and confidentiality for respondents may have been compromised should the Directors of Nursing have been able to identify respondents by virtue of the disclosure of demographic characteristics, such as gender, age, work tenure, number of children, etc. Social desirability bias may also have been an issue in this case.

Overall, the researcher had little control over which nursing specialties received the questionnaire package and in what proportion. This circumstance also meant that the researcher had had limited interactions and other contact with nursing staff during the data collection process.

Finally, similar to the first study, the rate of returned to distributed questionnaires was below 50%. A test of representativeness between the study sample and the hospital nursing population indicated that the sample was representative of the hospital nursing population. A related point is that current nurse attrition rates may influence the representativeness of the sample. For example, the rate of nurse emotional exhaustion among hospital nurses may appear to be lower than in previous years in the past merely because a majority of nurses who were experiencing emotional exhaustion may have left the hospital setting. In addition, part-time and casualisation of the workforce has meant that the rate of experienced burnout for individual nurses may not be as intense for nurses as has been reported previously (Duffield & O'Brien-Pallas, 2003).

It is also possible that the majority of participants who had completed the questionnaire package may have been satisfied with their work and coping well. Nurses who were more at risk of detrimental health effects may have been non-respondents, or otherwise absent, and as a result, had limited opportunity to complete the questionnaire package. Alternatively, negative responses submitted by respondents could represent the nurses who were feeling disillusioned and irate with their current working conditions and the minimal support provided. As a result, these participants may have been more motivated to complete the questionnaire than other respondents. As in the first study, it is difficult to determine the extent to which either of these potential biases may have affected the findings.

CHAPTER SEVEN
INTRODUCTION OF STUDY THREE

7.1 Introduction

Following on from the first and second study surveys of hospital nursing staff, a final study was conducted to explore the viewpoints of consultants working for Employee Assistance Programs (EAP) in relation to work stress in the nursing profession. Often contracted by, or otherwise having routine contact with high level management and employers, EAP consultants are in a favourable position to work with both management and floor level nurses to generate positive changes in health care organisations. Accordingly, the aim of this study was to investigate EAP views concerning the most prominent issues in nurse occupational health, as well as effective individual and organisational level interventions that might be used to manage these problems.

Knowledge of how individuals interpret work stress is important to determine the impact of work stress on individuals and organisations (Kinman & Jones, 2005; Lewig & Dollard**,** 2001) and allows for the implementation of appropriate interventions to target specific problems**.** As Briner and Reynolds state (1999, p. 660): *'The absence of practical, reliable and effective assessment techniques is perhaps a reflection of the limitations of our present knowledge'*. For this reason, a qualitative approach may be beneficial in providing accounts of how EAP consultants interpret the work stress problem for the nursing profession.

This literature review extends empirical research on the antecedents of occupational stress by considering workforce management. The review will consider different types of occupational stress interventions as well as a particular type of tertiary intervention and most frequently used resource for work stress management in organisations: Employee Assistance Programs (Lamontagne *et al.*, 2007). In this study, the Conservation of Resources Theory will be used as a framework for considering the use of EAPs as a resource by individuals and organisations for offsetting the consequences of stress. The epistemological position of the researcher and some rationale for the research are also provided.

7.1.1 Interventions for occupational stress: Occupational stress management

The implementation of interventions to target occupational stress has been encouraged since the 1970s, in light of research that had identified that direct and indirect work stress incurred both costs to employers and also placed workers at risk of poorer physiological and psychological health (DeFrank & Ivancevich, 1998; Newman & Beehr, 1979). Organisational cost analyses have quantified the cost of utilising health care services for psychological distress, the effects of lowered job motivation, losses of productivity, lost work time to cope with (i.e., leave taken) and other related problems (Lambert, Lambert & Yamase, 2003).

Interventions to address job stress can be applied to individuals, to their workplaces (process, procedures and structures) or towards both individuals and their organisation at the same time. Intervention types have been typically classed into three broad categories: primary, secondary and tertiary. Primary interventions are often considered to be preventative. Such changes may include enhancing the skills of employees via training that alerts workers or middle management to changing technologies, or effective team interaction strategies, communication skills development (Brotheridge & Lee, 2008; Riggio & Riechard, 2008), or problem solving strategies. Other changes might include increasing role clarity, reducing or altering workload schedules to reduce stress or resolve work-home conflict, and increasing autonomy empowerment and participation in decision making for employees (Briner, 1997; DeFrank & Ivancevich, 1998).

Primary approaches to organisational change at a state/national policy level include changes to legislation and the effective promotion of knowledge of work stress. Legislation and regulations, policies and practices of countries such as Sweden, The Netherlands and the UK also allow for the development of sound work stress prevention programmes. Although jurisdictions in Australia recognise the issue of occupational stress, prevention has largely reassessed the responsibility of individual workplaces. Research toward the implementation of a national monitoring system in Australia is currently being conducted (Dollard, 2006). Information related to work stress items in the form of leaflets, research reports, books, conferences, training courses videos and via TV broadcasting have been useful primary approaches to

reducing work stress in Sweden and The Netherlands (Dollard, Winefield & Winefield, 2003).

Previous focus on primary interventions has been sparse, with secondary and tertiary interventions gaining the most attention. Briner (1997) suggests that the latter are preferred because *'In an organisational context….changing the nature of the job or the organisation may be considerably more daunting and complex than simply buying-in some of the other types of intervention'* (p. 62).

Secondary interventions focus on coping mechanisms for the employee faced with work stress and often comprise short-term courses of a half day to several day duration. Examples of courses include stress management, time management, and assertiveness training. Short-term courses may be run for groups, departments or throughout organisations (Briner, 1997; Dewe & O'Driscoll, 2002).

Finally, tertiary interventions may be applied to individuals or groups of individuals that have experienced the consequences of occupational stress. Of these, the most widespread use of the tertiary intervention approach is counselling, which is often currently provided via use of Employee Assistance Programs (EAPs). Findings in relation to the EAP may be fed back to the organisation to enable interventions to be tailored more effectively to the organisation.

7.1.2 Employee Assistance Programs (EAPs)

Interventions provided by EAPs for nursing staff will be the focus of this study. In general, EAPs are funded by employers as a resource to employees and their families. EAPs provide many other free and confidential services along with counselling to employees, including professional assessment, psychological therapies for psychological distress and trauma, referral, training and education, mediation, and management consultancy (Arthur, 2000; Dewe & O'Driscoll, 2002; Kirk & Brown, 2001, 2003; Roman & Blum, 1988).

The first EAP services in Australia were introduced in 1977. Following developments in the US and the UK, EAPs were designed originally to combat drug and alcohol abuse. For example, the Australian Foundation on Alcohol and Drug

Dependence funded a program and employed industrial program coordinators in each of the states and territories of Australia during this period (Nankervis, Compton & McCarthy, 1996, cited by Kirk & Brown, 2003). By the 1980s, services provided by EAPs had expanded to encompass broader personal and other work and non-work related problems (Buon & Compton, cited by Kirk & Brown, 2003). Employee Assistance Programs have aimed to reduce undesired work-related outcomes, such as absenteeism, turnover and low workplace morale, and to increase productivity. Many EAPs have employed psychologists in Australia and will continue to do so. The growth of EAPs is expected to rise, following trends similar to the UK and the US (Kirk & Brown, 2003).

Research in the area of Employee Assistance Programs has existed since the early 1990s (Herlihy, 2004). Previously, individual level interventions, such as counselling, have been provided by EAPs, with organisational level interventions or the individual/organisational interface in the past commonly overlooked (Alker & McHugh, 2000; Csiernik, 2005). Individual level interventions are relatively easy to conduct and pose no threat to the organisation involved. Since the focus has been on the individual, with disregard for the interaction between the individual and the structure of the organisation to which he/she belongs, this type of approach has often been termed the 'bandaid' approach.

According to experts, an EAP that is tailored to the needs of a specific organisation and provides feedback will have a greater likelihood of giving rise to positive outcomes. The likelihood of success is also greater when the EAP program is internal rather than external (Cooper & Cartwright, 1994; Kirk & Brown, 1999). Previous research has criticised externally based EAPs as predominantly focussing on individual based interventions, with less attention being paid to organisational factors affecting employee health and well being (Kirk & Brown, 1999, Kirk & Brown, 2002). An explanation for this observation is that externally based EAPs may have less access to organisational cultures and opportunities to demonstrate credibility and gain trust from employees than internally based agencies.

Kirk and Brown (2001) found that external Australian EAP companies were more frequently used to tackle non-work issues, whereas Australian internal EAPs

tended to address more workplace issues. The authors argue that a harsh reality that external EAPs have to face is not that they are unable to provide services apart from counselling, it is the perception is that they are utilised for no more than merely a public relations exercise and a counselling service program funded by employers. According to Cooper and Cartwright (1994) employers would like to appear mindful of the welfare of their employees, and may convince themselves that counselling and individual based services may solve issues that are, in effect, arising from fundamental work environment problems.

Kirk and Brown (1999) surveyed EAP professionals who were members of the Employee Assistance Professionals Association of Australia to determine the core activities of EAP professionals, as well as specific services offered by EAPs. Although all respondents indicated short-term counselling as a core activity, other core services nominated included assessment and referral services, critical incident stress debriefing/trauma management, processes linking EAP with an organisation's broad Human Resources (HR) practices, and management consultancy. Interestingly, processes linking EAPs with an organisation's broad HR practices were the most frequent services provided (45%). This suggests that organisational level interventions are routinely offered to clients if requested, contrary to common perceptions of external EAP services. However, there is a need for EAP services to be more strongly integrated with broader organisational HR functioning. Kirk and Brown suggest that the failure of integration '*in part.. may be due to a perceived incompatibility between OHS models which focus on environmental and structural strategies and those of EAPs which have been labelled as individualised in orientation'* (p. 218).

Although research indicates that the introduction of EAPs on the whole results in an improvement of individual and organisational well-being (Beidel & Brennan, 2005; Greenwood, 2005; Preece, 2005; Roman & Blum, 1988; Roman, 2005), programs can only be highly effective if there is a match between the needs and values of employees, HR and stakeholders (Beidel & Brennan, 2005; Csiernilk, 2005; Kirk & Brown, 1999). HR personnel are often 'sandwiched' between ethical and financial considerations (Rossi & Freeman, 1993).

A common criticism of EAPs is that they do not follow a standardised model. They remain unregulated and therefore of variable quality. Claims that EAPs would deliver a positive cost return, or at least the return of an original investment (i.e., cost-neutral return), have not been substantiated (Arthur, 2000). According to Arthur, few controlled and methodologically sound studies of the effectiveness of EAPs for stress management have been conducted. Some studies were conducted in order to defend positive claims of EAP effectiveness, or for other political reasons. These studies are therefore biased. The confidentiality of consultants has also restricted the ability to conduct adequate evaluations (Arthur, 2000; Cooper & Cartwright, 1994). In the minimal research conducted on evaluating EAPs, a lack of longitudinal studies or control groups is noted. It is imperative that standardised and controlled designs (preferably longitudinal) are utilised, in order to allow comparison between groups of employees using EAPs with those who do not use EAPs, and/or to link the mental health status of individuals with EAP utilisation rates.

Further, EAP professionals have indicated difficulties in demonstrating competency that extends beyond the provision of counselling unless the client organisation requests other information or assessment, such as performance objectives beyond cost and statistical reporting of usage rates (Kirk & Brown 2001). It is therefore difficult for EAP providers to evaluate their services if the organisation does not request that. In addition, it is difficult to evaluate EAPs due to variations in approaches or treatments used to target problems within diverse organisations, as well as the fact that there is no consistent definition of an EAP (Roman & Blum, 1988; Kirk & Brown, 2003).

Although EAPs have been criticised due to a lack of evaluation studies, as well as the existence of studies that have shown little organisational benefits of EAPs (Alker & McHugh, 2000; Arthur, 2000; French, Zarkin, & Bray, 1995; Shahar & Hertenstein, 2005), EAPs are still encouraged and utilised as an intervention strategy by many employers. EAPs may be in a good position to understand the most important issues and provide insight into the range of interventions attempted as well as which interventions appear to be the most effective. For example, cost-benefit analyses have been used to argue for the continued use of EAPs (Roman, 2005), despite little evidence that clearly demonstrates the efficiency and effectiveness of

EAPs. As with other types of interventions, EAP use may be due to reasons other than demonstrated effectiveness. Alker and McHugh (2000) refer to claims that in 1996 tens of thousands of EAPs were sourced by companies worldwide.

The implementation and evaluation of primary interventions supported by management is required in order to reduce organisational level problems. The use of primary interventions by Australian EAPs that are internally or externally linked to organisations is increasing, following an increase in knowledge of the benefits of preventative strategies toward occupational health (Cooper & Cartwright, 1994). However, research on Australian EAPs and the kinds of services offered to clients (including interventions to target organisational level problems) is lacking. The function and application of EAPs for use among Australian nursing staff will be investigated in this study in order to contribute to the knowledge base of current health services and treatments available to support nursing staff in Australia.

7.1.3 Aims and objectives

The study explores the current development and implementation of treatment/intervention services provided by a workplace counselling and consulting department of a large public hospital, as well as by an externally contracted EAP. Information with respect to the kinds of interventions consultants perceive are the most effective will also be investigated. The research aims to analyse aspects of nursing work that contribute to nurse work satisfaction, and to identify risk factors for consequences such as burnout, low job satisfaction, high turnover and worker compensation claims using the Conservation of Resources Theory as a framework. Knowledge of how EAP/workplace counselling and consulting service providers perceive ‘work stress’ amongst the nursing profession would complement the quantitative data previously obtained.

The research questions are:

1. What do EAP consultants believe are the topical or recurrent presenting and emerging issues (losses) for nurses working in acute care hospitals, based on their experience of seeing nursing staff as clients?

2. What responses do EAP consultants have to these issues, specifically with regard to enterprise-level interventions (resources)?

3. What are the implications of the findings for organisational-level change relevant to management or reduction of nurse work stress?

CHAPTER SEVEN
METHOD OF STUDY THREE

7.2.1 Participants

The participants (7 females, 1 male) were drawn from two Employee Assistance Provider (EAP) organisations that provided services to the hospitals sampled in the first and second studies. Five participants were between 40 and 50 years of age, and three were between the ages of 30 and 40 years. One EAP was the internal service for the hospital sampled in Study 1, while the other EAP organisation was contracted to provide services to the hospitals of Study 2.

The internal EAP organisation provided interventions such as personal counselling and therapy, trauma counselling and eye movement desensitisation and reprocessing therapy, critical incident stress management, conflict resolution, policy development, customised programs, promotion of organisational change, internal and external advocacy, and customised programs. Other programs include services related to the use of the Myers Briggs Type Indicator in the workplace, consultancy to management and staff, peer support, physical and mental health concerns, identifying bullying in the workplace, support and communication, relaxation, information, resources and referrals, and massage therapy. The external EAP offered organisation and social consultancy, training services (e.g., stress management training), mediation services (e.g., staff advocacy), crisis intervention services, executive/management coaching and mentoring, and injury management services.

Internal and external EAP consultancies had over 10 years experience working in the field, along with post-graduate qualifications in their staff. Individual services provided were confidential, except for generalised reporting back to management. Counselling and consulting sessions usually lasted one hour, unless the situation escalated into an emergency.

The internal EAP had been providing services to staff for over twenty years. Consultants at the internal EAP provider were delegated different tasks according to their working status, personal preference, and role within the unit. These tasks included, although were not limited to, policy writing, collaboration with and advertising the program to outside stakeholders and organisations, providing

counselling and other team or organisational based workplace interventions, seeking information for clients, advocacy, report writing and professional development (i.e., to keep the unit updated with current applications and knowledge).

Each of the consultants at the external EAP had acquired specialised competencies and expertise, so that each consultant did not provide exactly the same types of services as another. One consultant assisted with individual-based services such as hypnotherapy, vocational and psychological assessment, psychotherapy, relationship and other types of counselling, another provided critical incident stress debriefings, supervision or administration of tests such as the Myer Briggs Type Indicator. A third consultant specialised in management consulting, coaching and change management and professional development, while a forth assisted services such as mediation, conflict resolution, family counselling, as well as training sessions.

7.2.2 Instrument

A structured interview was designed (Appendix 7.2) based on knowledge of the broad principles of stress management interventions, as well as based on the results of the previous two studies. Preliminary questions allowed the researcher to gauge whether EAPs were regularly utilised by the hospitals sampled (e.g., questions such as how often the consultants worked with both nursing staff and nurse managers). Given that triangulation of both quantitative and qualitative approaches was applied to the research program, the researcher sought to compare nurse responses to the questionnaire packages in Studies 1 and 2 with the views of EAP consultants. For this purpose, the researcher sought the views of EAP consultants in relation to common issues that were associated with nurse well being, antecedents of nurse burnout, job satisfaction, intention to leave, acute care hospital nursing versus other nursing worksites, and complications with shiftwork and rostering.

Finally, the researcher sought the views of EAP consultants with regard to 1) what types of primary, secondary and tertiary interventions at individual, team and organisational levels were available to nursing staff; 2) their effectiveness, including which interventions have been most effective among nursing staff; and 3) whether nursing staff, relative to other occupational groups, had a greater risk of occupational stress [2) and 3) were linked to the third research question, see section 7.1.4].

7.2.3 Procedure

Once the EAP organisations for the sampled hospitals were identified, a literature review on current workplace interventions and evaluation of intervention effectiveness was compiled and the structured interview questions were constructed.
It was decided that a standardised, structured interview would fare better than a semi-structured form (Patton, 2002).

The same pre-determined questions (and therefore the same stimuli) were used for each interviewee in the same way and same order (Patton, 2002). This was done to ensure that consistency could be maintained across interviews, so that a comparison could be made between interviewees, groups and sites. The researcher was prudent to ensure that singular questions were asked (i.e., one idea or question is asked within each structured question), to avoid asking closed questions or questions beginning with the word 'why,' to avoid asking presupposition or leading questions, and to avoid asking sensitive questions. The interview questions began with background information questions, with progression to more complex or sensitive questions. Prior to a final draft the list of structured open-ended questions were reviewed by two independent researchers associated with the research.

<u>The interview questions</u>

Once the study questions were finalised, a letter was sent to the directors of each of the EAP providers in order to ask for permission to conduct the project. Participants were assured that a copy of the questions would be received before an interview took place and that a copy of the interview transcripts would be provided at the project's completion (with any other evidence destroyed). Participants were also offered reimbursement should interviews be conducted during working hours, or if they would otherwise inconvenience interviewees. Participants (including directors) were assured that confidentiality would be maintained throughout the project and that they could withdraw at any time. The directors were also informed that the researchers would ensure an ethical approval process before conducting the project, and that the organisations would be informed should ethical approval be granted.

Once permission from the directors and ethical approval to conduct the project was obtained from both an ethics committee connected to the public hospital, as well as a university departmental ethics sub-committee (Code number for ethics committee: 061203; Code number for department ethics sub-committee: 06/112) the researcher commenced the project at a time convenient to both organisations. Each EAP consultant was contacted individually and asked to participate. Of the available eight consultants at the external EAP provider, five agreed to participate. All three consultants working for the internal EAP provider agreed to participate.

Interviewing

External EAP provider consultants were interviewed individually, whereas internal EAP provider consultants were interviewed as part of a group discussion on the day the interviews were scheduled to take place. The external EAPs argued that a group discussion format would facilitate completeness of the data obtained as each consultant could build on the material of another. This format could also cater for the fact that one of the consultants was relatively new to the team, with less experience upon which to draw.

At the time of the interview, interviewees were asked for permission to audio tape record interviews. If the interviewee agreed, the interviews were recorded in order to assist with analysis, and were destroyed after use. The list of standardised, structured open-ended questions was referred to during the interview. In addition to the structured questions, open expression or diversions by participants were permitted if the information proved to be useful for clarification of previous statements. Following recommendations provided by Taylor, (2005), detail-orientated, elaboration or non verbal cues, clarification and contrast probes were provided if necessary, in order to allow the interviewee to explore salient topics further. The interviewer avoided being too directive in the interview so as to drive interviewees away from his/her own ideas and thoughts, but attempted to be directive enough to ensure all questions listed were asked, preferably in their correct order. Each question was covered, although no approximate time was specified for which each response could be provided. On average, interviews for with each consultant were approximately one hour. However, consultants were advised that interviews could be shortened according to the time stipulated in the participant information sheet if

necessary or desired. The interviewer attempted to maintain neutrality, so that the interviewee could feel comfortable disclosing sensitive or personal details to the interviewer without fear of judgment, favour or disfavour with regard to the content, as well as rapport (the transference of empathy and understanding without judgment) during the interview (Patton, 2002).

At the completion of data collection, the data were transcribed, with all identifying information of participants (e.g., names, gender, location of work, tenure, specialisations) removed from typed transcripts. The data were manually analysed using thematic analysis. Themes and codes were developed according to descriptions and examples presented by both Boyatzis (1998) and Braun and Clark (2006) using the same methodology that was used to conduct thematic analyses in the first and second studies. According to Boyatzis, thematic codes are used in analysis, interpretation and presentation of research to describe and encapsulate the 'qualitative richness' of a phenomenon. Given this property, a good thematic code provides high inter-rater reliability and validity. A thematic code comprises five elements, including a label, a definition of the theme, a description that allows a coder to flag the theme, or know when the theme is present, a description of qualifications and exclusions to the identification of a theme, and if necessary, positive or negative examples to eliminate confusion when searching for themes in the data (see section 8.2.3). In addition, Boyatzis suggests that the theme label should be meaningful to the phenomenon represented, be clear and concise, and be close to the data, especially in the initial stages of the coding process, in order to eliminate biases with regard to interpretation of the researcher.

Accordingly, the Boyatzis (1998) approach to coding consisted of 1) reducing the raw information into main ideas based on reading transcripts; 2) looking for repeated patterns and similarities of meaning and producing a broad outline; 3) identifying broad preliminary themes; 4) defining themes and distinguishing themes from each other; and 5) creating codes to represent those themes.

Braun and Clarke (2006, p. 82-84) in applying Boyatzis (1998) to their interpretation state:

> *'A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set…With a semantic approach, themes are identified within the explicit or surface meanings of the data, and the analyst is not looking beyond what a participant has said or what has been written.' Beyond this point, organised patterns of semantic themes are interpreted and a theory with regard to the significance of the themes extracted is constructed, with regard to broader meanings, implications and previous literature.'*

Braun and Clarke interpret the phases of thematic analysis as follows:

1) familiarising one with the data (including transcribing, reading and re-reading the data and recording preliminary ideas);
2) generating initial codes (coding salient features of the data in a systematic fashion, paying attention to collate data relevant to each code);
3) searching for themes (collating codes in potential themes);
4) reviewing themes (ensuring that the initial themes encompass the entire data set, as well as adequately represent the coded extracts);
5) defining and naming themes (ensuring that specifics of each theme are defined and that clear definitions and labels for themes are provided); and
6) producing the report (analysis and selection of extracts to best support arguments proposed), relating the analysis back to the research question, aims and objectives, and referring to preliminary literature to support or confirm findings.

Using the guidelines presented by both Boyatzis (1998) and Braun and Clarke (2006), the researcher applied thematic analysis to the entire data set (as opposed to specific aspects of the data set), using semantic themes (as opposed to latent themes). Responses to each interview question were also compared among participants and organisations.

7.1.4 Rate-Rerate-reliability

In order to eliminate possible biases introduced by the researcher, the researcher repeated the thematic analysis a fortnight later to ensure that results were valid at a different point in time. The same phenomena that initially emerged were replicated.

7.1.5 Inter-rater reliability

Given that only one person had analysed and interpreted the data from his/her perspective, the reliability of the data cannot be achieved unless another individual provides similar conclusions to the original researcher by following the audit trail (i.e., by analysing the data using the same format). To examine inter-rater reliability, strengthening the value of the research, a second coder (with a six year degree in psychology) was invited to repeat the data analysis process using coding criteria previously agreed upon. The second coder was given data that was selected from each of the five transcripts (5 individual interviews and 1 group discussion), was provided with knowledge of the number of themes that the original coder identified, as well as general guidance with regard to where in the transcripts themes were identified and coded (i.e., by using italicised face). The second coder was also made aware that some material in the transcripts was coded under more than one theme (e.g., had more than one code assigned to it). The framework described by Boyaztis (1998) for presentation of codes was used. Kappa coefficient statistics were then calculated in order to measure inter-rater reliability (see section 8.1.4 and Appendix 8.2).

7.1.6 Validity

Validity in qualitative research cannot be assessed in a quantitative sense given that the sample size in qualitative research is generally low. However, a vast amount of data can be obtained based on the perspectives of a small number of cases, for which each interpretation may differ. However, qualitative researchers (Mays & Pope, 2006; Meyrick, 2006) provide guidelines for improving the validity of qualitative research. The six guidelines provided by Mays and Pope are discussed below.

(a) Triangulation

Triangulation refers to a compilation and comparison of data using different researchers, methods (i.e., use of both quantitative survey and interviews), theories or sources (Madill, Jordan & Shirley, 2000). It is generally viewed as a method of

making a study more comprehensive in detail than as a pure test of validity. Further, it is noted that weaknesses in one method may or may not be compensated by strengths in another, and qualitative analyses may even reveal weaknesses in quantitative measures. Thus, triangulation may reveal inconsistencies in data obtained using different methods, or may yield findings that may complement each other, providing accuracy and objectivity in their convergence (according to a realist perspective).

(b) Respondent validation

Respondent validation refers to part of the research process where a researcher's interpretation of data is compared to a respondent's account, in order to establish a level of correspondence, and preferably, to reduce error.

(c) Clear exposition of methods, of data collection and analysis

A clear process of data collection and analysis is often necessary in order for a reader to judge evidence from which conclusions are drawn, based on the methods, data collection and analysis procedures outlined. The concept of inter-rater reliability can be incorporated into this process. Alternatively, after having provided enough data for the reader to judge whether the evidence supports the data obtained, explanations should be provided that may account for the results obtained.

(d) Reflexivity

Reflexivity is the self-awareness of the researcher in terms of how the research process influences, or biases, data collection. These factors include how pre conceived ideas and experience of the researcher may influence the type of research conducted. Mays and Pope (2006) suggest that personal and intellectual biases be made known to a reader so that the reader may judge the credibility of findings. Features that differentiate a researcher from a participant, such as age, gender, social class and professional status should be discussed as these may also influence the data collected (Mays & Pope, 2006; Taylor, 2005).

(e) Attention to negative cases

Not only could validity of qualitative research be improved by providing alternative explanations for data collected, consideration of aspects of the data that contradict the primary explanation provided by the researcher should also be provided. The risk of

preconceived ideas or established theories remaining unchallenged may therefore be reduced.

(f) Fair dealing

The final general guideline is to ensure incorporation of a wide range of different perspectives, so that the perspective of one individual or group does not dominate the evidence, so as to suggest that that particular viewpoint is the single truth.

These criteria will form the basis for discussing generalisability of findings from the current study, and stem from a pragmatist epistemology. A pragmatist epistemology focuses on the minimisation of errors in qualitative research, and is appropriate for mixed methodologies where both quantitative and qualitative approaches are utilised to investigate research questions. For example, a pragmatist epistemology is often used applied in research in healthcare and policy contexts (Adamson, 2005; Mays & Pope, 2006). Mays and Pope (2006) argue that given qualitative research is diverse and therefore difficult to regulate in terms of validity, assessment of acceptable qualitative research must arise from the exercise of judgment from a researcher, as well as from readers of qualitative research.

CHAPTER EIGHT
RESULTS OF STUDY THREE

8.1.1 Representativeness of sample

The response rate for the external EAP provider was 62.5% (5 of 8 consultants participated), whereas all three consultants at the internal EAP provider agreed to participate. Three participants working for the internal EAP were interviewed via group discussion, whereas 5 participants working for the external EAP were interviewed individually.

8.1.2 Background information of the sample

The internal and external EAP services are distinguished throughout this analysis in order to account for the claim that the influence of the mode of EAP service delivery (e.g., internal versus external) may differ in terms of its impact on employee health and well being (Kirk & Brown, 2003). The internal and external EAPs also provided slightly different services or had greater access to clients per year as compared with the other group. Each EAP service reported having provided up to a maximum of 6 sessions to each client, although sessions varied between 2-14 sessions for internal EAPs, depending on the client and the issues involved.

8.1.3 Responses to structured interview questions

The responses to the individual structured interview questions will be presented before the themes that were extracted from the data as the responses to the interview questions formed the basis for the themes.

Roles of consultants: time spent with clients, management and other roles

Apart from concerned nursing managers who made appointments and referrals for their staff, the majority of the time spent with clients involved informal counselling and advice, training and group-based interventions (e.g., critical incident debriefing interventions in aid of alleviating trauma). Both internal and external agency consultants stated that informal peer supervision and other opportunities to perform leadership roles were available. Some management roles included weekly staff meetings, introducing educational guest speakers, continuing education, including revision of therapies, and meetings with associations and colleagues from other

disciplines. Other relevant functions included acting as a service coordinator and selling EAP services, providing consultancy to managers, performing mediation, leading critical incident debriefings, providing training programs, and meeting with human resource, medical practitioners and union personnel.

Number of nursing staff and nursing manager the consultants worked with annually

The internal agency consultants reported having worked with over half of the hospital staff population. Consultant 1 of the external agency reported having seen over 364 clients a year, Consultant 2 maintained around 200 appointments a year, Consultants 3 and 4 saw 140 and 156 nurses, respectively, annually, whereas Consultant 5 indicated that only 1 nurse was seen per month (a total of around 12 per year).

In relation to nursing managers, consultants at the internal service stated that they either counselled (60%) or consulted (40%) with 80-90% of nursing managers (400 out of 500). The number of nursing managers seen by the external consultants was more variable. Whereas Consultant 4 reported around 260 referrals of nursing managers, Consultant 5 had seen only 2 nursing managers over the last twelve months.

Most common personal and work-related issues indicated by nursing staff

The most common personal and work-related issues reported by nursing staff to the EAPs are summarised in Table 8.1.

Table 8.1

The Most Common Personal and Work-Related issues Nurses presented to Internal and External EAP Consultants

Internal EAP: Most common Personal Issues	**Internal EAP:** Most common Work-Related Issues	**External EAP:** Most common Personal Issues	**External EAP:** Most common Work-Related Issues
• Domestic violence • Childhood abuse • Relationship breakdown • Anxiety and/or depression • Addictions • Work to family balance • Having to care for sick parents or children • Financial problems.	• Harassment and bullying • Conflicts with supervisors • Violence from mental health patients in non-psychiatric wards, (particularly where nurses under their care have had no psychiatric training) • Stress experienced due to understaffing.	• Relationships and parenting • Drug and alcohol addictions • Psychiatric conditions, • Work to family balance • Career counselling.	• Harassment and bullying • Staff conflict • Stress and overload • Lack of resources • Poor management practices • Too much responsibility too soon for junior nurses • Work performance issues • Change and transition • Critical incidents • Injury at work • Difficult patients.

Perceived causes of nurse burnout

According to internal EAPs, nurse burnout was caused by 1) nurses not having a self-care or personal stress management program; 2) general nurses having had no psychiatric training when caring for mental health patients, or having no desire to work with psychiatric patients; 3) a mismatch between personality and values of the individual and the organisation; and 4) work overload and lack of social support.

More than one external EAP consultant indicated that nurse burnout arises most commonly from the issues that emerged in the previous studies, such as 1) limited resources (e.g., quality of patient care compromised due to limited funding), 2) inadequate management practices, 3) interpersonal conflict and harassment, 4) the hierarchical system impacting on the way employees' perception and communication

with each other (often exacerbating a stressful environment and encouraging the perception of powerlessness), 5) stressful environments, 6) nurses' expectations of themselves (i.e., feeling that they need to be all things for all people), 7) shiftwork and not maintaining self-care, and 8) little social support. Other issues identified by consultants included low staffing numbers, unskilled managers, shiftwork with limited time to recoup, shift overtime, paperwork and other administration duties, working in an environment where the majority of staff are experiencing burnout, and a mismatch between personal and organisational values.

Contributors to nurse job satisfaction

Many of the same issues identified in the previous studies were reported by the EAPs. These factors included adequate team support, a positive working environment, the ability to spend time with patients, and the quality of working relationships.

Other factors contributing to job satisfaction from the perspective of the EAP consultants included: professional development, empowerment, flexibility, fairness and equality, OHS issues, nurses feeling that they receive adequate remuneration, tight time constraints, as well as nurses being able to participate in organisational decision making and having their requests acted upon by managers.

The percentage of nurses who remain in the nursing profession

The internal consultants described many situations involving nurses who initially stated that they wanted to leave the organisation due to communication problems and misunderstandings between staff in the workplace, or, between staff and supervisors. Bullying and trauma from witnessing deaths were other reasons for leaving. Many nurses did not leave the profession, but transferred to different areas of the organisation or from acute care work, to agency work or nursing home care.

Consultants from the external agency suggested that nurses exit their profession as a result of a decision to change careers (this was said to be common). Alternatively, nurses found work situations untenable as a result of being part of the casual pool, which made it difficult for them to identify with the broader goals of their teams and working styles.

Improvement of working arrangements for the nursing profession

In discussing what would improve working arrangements for the nursing profession (Question 7), the internal EAP consultants reported that a reduction in the number of psychiatric patients as well as an improvement of the organisational culture of the health care system would be important. More than one external agency consultant reported the need for staffing improvements and greater flexibility as well as funding and equipment improvements for public hospitals to enable the development of professional skills. There were also calls for improvement in wages, reduction of hours for private system nurses, less conflict between senior management and nursing staff on the floor, and improvements in nurse self-care. In particular, Consultant 2 called for an increase in professional responses to nurse personality and interpersonal conflict between nurses and staff. Consultant 3 referred to a need for nurses to be given opportunities to recoup for overtime and 'horrific stretches of shifts and being run down'. Consultant 4 discussed a need for nurses' concerns to be heard and supported as well as a need to greatly reduce 'non-nursing duties,' such as paperwork, whereas Consultant 5 referred to a need for a set of organisational values that were shared by individuals and the organisation. As Consultant 5 pointed out: *'Caring for patients is a primary part of a nurse's identity for a lot of nurses and the thing at the core of how satisfied they are and how much they enjoy their work'*.

Similarities and differences between nurses working in acute care versus other nursing work sites

Question 8 asked about the experience of consultants in working with nurses from a variety of nursing settings (e.g., agency, community nursing or nursing home environments) as compared with nursing working in hospital settings. Internal agency consultants suggested that, as compared with hospital nurses, agency nurses were likely to have more autonomy, although fewer support services in the event of crashes or assaults. It was also suggested that agency nurses had more time to attend to their patients and therefore 'more time to care' than hospital nurses. Community nurses were seen as being less socially isolated because they worked in a less impersonal setting where they had greater access to management. However, it was noted that there are advantages to the hierarchical structure of the hospital system, including

safety during emergency situations when an immediate and clear answer must be provided.

The external EAP consultants suggested that nurses in hospital settings are more likely to be accountable for their conduct because they work in larger teams than community, agency or home care nurses. However, the flatter structure of other settings is advantageous in allowing direct influence on how nurses do their work, allows greater role clarity, has lower rates of bullying, and is a less stressful environment than a hospital setting.

Consultant 3 argued that irrespective of where they work, nurses work under similar conditions. They are usually under resourced and are expected to do too many administrative duties. Consultant 4 suggested that the hierarchical structure creates a fair system that works to the advantage of all employees. It was also mentioned that it was more likely that employees would gain more experience, including management experience in the hospital system. However, limited training in aged care, as well as working in an environment with fewer people may result in nurses feeling ostracised and bullied. This is facilitated by limited organisational structure and accountability, according to Consultant 4. Lastly, Consultant 5 noted that there may be an age difference between settings, with a greater number of young people in hospital settings.

Treatments or interventions are currently available for nurses that are provided by the EAP agencies (Question 9)

In response to Question 9, the internal agency consultants indicated that they would handle this situation in the same way that they handle any kind of request they are faced with; they use resources at hand and approaches that appear to be appropriate and useful for clients. The external agency consultants discussed approaches such as 1) problem-solving orientated counselling (assessing what the nurse has already tried or empowering the client to resolve his/her issues); 2) assertiveness training, encouraging constant and clear communication between parties; 3) mediation (in order to open the flow of communication if necessary); 4) liaisons with the manager (with the permission of the client); 5) alerting clients to their rights in terms of informal and formal OHS and policy procedures; as well as 6) encouraging nurses to

talk with human resource and other leaders within an organisation before exiting in the event other opportunities may be available. Should all other informal avenues not be successful in eliminating a problem, an attempt would be made to explore individual coping mechanisms. Helping a client to find new employment strategies may be suggested as a last resort. If a number of similar cases are observed, the consultant may advise the human resources department of the organisation that there are problems in a particular area.

Providing feedback to managers

In explaining how consultants would provide feedback to managers (Question 10), internal consultants reported liaising with managers only when they had the permission of their clients. Sometimes they would help clients by seeking information for them (without identifying clients), and then would report this information back. All consultants stated that they discouraged mediation, even when it was requested, and instead attempted to establish informal communication between parties. The consultants were also mindful that organisational issues, such as conflicts with managers and staff, may arise when there are problems in the non-work lives of staff. In such situations, consultants would therefore explore what else may be occurring that may be influencing the perceptions or mood of clients. At other times, consultants would educate staff on topics such as bullying and isolation of registered nurses or management staff. This included the bullying of registered nurses by their superiors, or the bullying of nursing managers by a group of registered nurses.

The external agency consultants also discussed confidentiality requirements, although suggested that if many clients present with similar concerns, the workplace concerned could become a ‘hotspot’. In this case, informal conversations would be carried out with the human resources section of an organisation. Feedback would be provided on topics such as conflict resolution and the differing personality styles of parties. Formal reports would be written for managers after mediations had been undertaken in order for managers to obtain records of the circumstances and resolutions agreed upon between parties. If a delicate issue were to be reported to the manager of an organisation, the external agency consultants stated that they would

contact the EAP general manager for advice and a team level decision would be made.

The consultants also emphasised the importance of not having to resolve the competing desires of management and clients, which could result in them telling both parties what each would like to hear rather than working towards solving the problems at hand. The consultants were also mindful that organisations may place certain problems and clients in the 'too hard basket,' and leave these issues to be resolved by the agency. In this case, the consultants would highlight this issue and report it or management, and encourage management to confront and resolve the problem on its own. If necessary, management coaching was routinely provided by the agency for those managers with limited managerial skills.

Treatments and interventions currently available for nurses that are provided by EAPs in response to the issues discussed

The internal agency consultants listed a wide range of interventions. These included:

- counselling and individual psychological interventions and therapies (e.g., interventions for trauma, anxiety, depression, or grief);
- advocating and support (i.e., writing a letter in support of a person to have leave without pay, or using statistics to advocate for change for particular nursing units, critical incident debriefings);
- practical problem solving;
- facilitating communication between staff;
- team building (e.g., using the Myers-Briggs to emphasise diversity in a group),
- group discussions, training sessions (e.g., stress management or assertiveness);
- interventions that are more specific to a department than generic courses provided by human resources; as well as
- maintaining a database for which clients can be referred to for treatment.

A particular facet of the internal agency was their ability and opportunity to research issues and conditions in more detail for clients than would otherwise be the case for specialists or other agencies. The opportunity to research conditions in more detail allowed the consultants to solve problems that would otherwise be neglected. Overall,

the internal agency covered many broad issues and were therefore able to assist with many different kinds of concerns.

For the common issue of stress in the workplace, basic counselling (i.e., problem solving approach), mediation and conflict resolution, group meetings between managers and staff members, group work level problem solving and discussion (e.g., peer support groups), use of the Myers-Briggs tool with groups, and group level critical incident debriefing would be applied.

For stress outside of the workplace, counselling, including grief counselling, psychological therapies, including hypnotherapy and eye movement desensitisation reprocessing for clients with addictions and trauma, cognitive behavioural therapy and relaxation therapy for clients with anxiety, depression and phobias would be undertaken. Relationships and parenting issues were treated via counselling and other behavioural skills training, as were drug and alcohol and psychiatric issues.

Bullying and harassment was addressed using problem solving-based counselling, mediation, assertiveness training (individual and group-based), education of inappropriate behaviours and boundaries between individuals or groups, and the examination of informal and formal OHS procedures. Mediation was only considered as a last resort.

Concerns about management practices were commonly tackled by providing management training or referring managers to training courses for unskilled/trained managers. Some education about personality would also be undertaken. Management coaching, approaches to better communication, dealing with conflict, assertiveness, time management and other supervisor skills would be provided to managers as part of management consultancy. Professional behaviour and ethics issues were typically resolved via counselling on appropriate workplace behaviour, or via education around professional conduct and ethics. The issue of organisational change and transition was assessed at both individual and organisational levels. This dealt with common responses to change, ways of minimising the impact of change, and how to ‘empower’ oneself to deal with change.

Critical incidents were resolved via either individual or group debriefings. Basic and career counselling was provided for professional development issues, as well as issues associated with being injured at work. However, physical and emotional safety would also be assessed via an investigation of OHS policies.

Effectiveness of individual interventions

The internal consultants indicated that individual interventions were more likely to be effective if the client were willing to be involved in the process and have an acceptable level of insight and emotion capacity. They suggested that effectiveness of individual interventions did not differ between occupational groups.

The external consultants stated that they regularly performed problem-based counselling in the first instance in order to identify what the problem might be (in the case that an emerging issue may differ from the presenting problem initially presented) before action would be taken. However, the consultants were often unaware of the outcomes given the short-term nature of many of the interventions. Consultant 1 suggested that individual interventions as a whole were not effective on their own without the implementation of organisational interventions. Consultant 2 suggested that individual interventions were effective for the purposes of debriefing and feedback, for skills development and training and for cognitive and behavioural change. Consultant 3 added that individual interventions were effective for identifying stressors and for problem solving.

A comparison of nurses with other professional groups

The internal agency consultants argued that many of the personal issues associated with nursing staff are similar to other professions, although certain aspects of the role for nurses (e.g., dealing with death and dying, constantly dealing with patients and their families experiencing crises, or experiencing abuse from patients and staff) are distinctive to healthcare workers. As compared with other professions, the nursing profession as a group was seen as more likely to include vulnerable people with a possible history of child abuse, addictions, domestic violence, or co-dependency, and that these personal factors were perpetuated by the organisational culture and

hierarchical system. Nurses were also seen as much more likely to engage in avoidance behaviours, such as smoking, as well as being prone to obesity.

Organisational culture is also considered to be a barrier to nurses seeking assistance for their problems. However, the consultants indicated that formal help seeking behaviour is more common, and that managers are now willing to seek external professional support for their staff.

The external consultants suggested that, in comparison to other professionals, nurses may have had higher expectations of themselves and had felt a higher obligation to their patients. The consultants indicated that more nurses were leaving the profession after reaching the age of 40, because of the physical demands of the job. They also suggested that nurses may use more avoidance strategies, such as alcohol use, than other occupational groups.

Consultant 1 identified a number of environmental factors of nursing that appeared to be distinctive factors of the profession. These included interpersonal conflict, stress, low staffing numbers, low social support as well as the historical hierarchical structure. Consultant 2 identified funding for resources and staffing, historical behaviour of cliques, especially in the larger public hospitals, gossip mongering and bullying among the nursing fraternity, and a lower proportion of unskilled managers.

Reasons for nurse exit from the profession

The internal agency consultants focused on what they felt were the reasons why nurses do not stay in the profession. Poor staffing levels were seen to contribute to unsatisfied patients and complaints, nurse stress and dissatisfaction at all levels, and eventually, the departure of nurses. Further, it was suggested that some nurses may experience burn out as a result of trying to achieve all of their goals and fulfil all of their expectations, and may feel inadequate if they are unable to achieve these goals under constrained working conditions. In this case, nurses may exit the profession as a result of burn out.

Final comments of the interview

In concluding the interview final comments were made in relation to questions not asked in the interview, as well as to emphasise the issues the EAP consultants believed to be significant. The external agency consultants discussed the importance of hospital management seeking training in management practices (i.e., developing skills to cope with inappropriate behaviour in the work place and in facilitating teams without completely relying on an EAP to solve these problems). This was in light of the conception that many clinical nurses who are not trained to be business managers are often expected to operate as business managers.

As a second issue, the consultants also commented on their observation that presenting and emerging issues (and therefore the reasons for referral to EAPs) are likely to differ between hospitals due to different organisational cultures, politics, and work or personal-related factors. Lastly, the consultants referred to an increase in the recognition and employment of organisational psychologists in healthcare organisations, and the role of psychologists in educating staff about the risk factors to employee health, as well as about the effective functioning of organisations.

8.1.4 Themes extracted from the data

All transcript data, containing the responses to the 15 questions described above, were analysed using thematic analysis (see section 7.2.3 for a description of thematic analysis) in order to further explore the research questions (section 7.1.4).

The 14 extracted themes were categorised into 3 meta-themes, each containing a group of themes that were sufficiently related to each other to be describing the same phenomenon, although distinct enough to be coded as separate themes (Braun & Clark, 2006). A detailed description of each theme is presented (Boyatzis, 1998), followed by excerpts that support each theme. A detailed compilation of some of the comments that support each theme is provided in Appendix 8.1.

The first meta-theme, entitled *The Role of the EAP* comprised four themes that focused on how EAPs influence nursing staff and management within hospitals. The

first theme, labelled: *Meat in the sandwich: Gaining credibility and trust from both management and nursing staff* describes how EAPs must gain trust and credibility from both management and staff on the floor in order to be effective in encouraging change. The consultants discussed the length of time that they had been part of the organisation, as well as the observation that many nursing departments had not wanted their involvement for many years until trust had been gained.

Credibility was required to be proven by consistent adherence to the EAP agency's missions and policies, including confidentiality. A lack of trust in the agency was partially attributed to older attitudes whereby counsellors were often sandwiched between management and staff, and were often biased toward staff concerns and desires, often to the detriment of staff.

Currently, both management and nursing staff either self-refer, or refer another staff member voluntarily out of concern, rather than enforcing compulsory attendance. The internal agency had also gained sufficient credibility to advocate for change on many broad areas without intimidation from management.

Although it was more difficult for the external EAP to operate within an organisation and facilitate direct changes than the internal EAPs, the external consultants were aware of the dangers of being 'sandwiched' between the different parties. A description of the theme is shown below.

A. The Role of the EAP – Meta-theme 1

I. Meat in the sandwich: (1) Gaining credibility and trust from both management and nursing staff

Definition Approaches to gaining credibility and trust from both nursing staff and management of the organisation

Indicators/Flags

Necessary to build relationships with clients over time

Need to maintain confidentiality and trust
Nurses want to test the waters before they self-refer

Old attitudes towards an EAP can take a long time to alter

The EAP goes to great lengths to resolve matters, have a lot of experience, and have built resources

Managers and staff feel comfortable approaching the EAP for advice

Increase of managers seeking assistance of EAP for the wellbeing of a staff member

Qualifications/Exclusions

Politics - code as organisational politics and change

EAP being 'swept under the rug' – code as organisational politics and change

Clients who see the EAP see on a voluntary, confidential basis only, and are not sent by management – code as Meat in the sandwich: Organisational politics and change

As one external EAP pointed out:

(External) C3: *'If I had approval* (from the client) *we would provide feedback to managers but we would be very careful about what we said, how we said it, to whom we said it and about who we said it. Sometimes it's over the phone, sometimes it's a meeting and depends on the situation. I guess we are very cautious about that given that it is the management that employ us and we are not there to tell management what they want to hear, but we also have to be careful that we are not taking on information that perhaps is one-sided by a client, so I think there is always the need to be cautious in that way'.*

The second theme was labelled *Meat in the sandwich*: *Overcoming organisational politics to bring about change*, and describes how counselling EAPs often have to overcome barriers associated with the politics and the organisational culture of an organisation in order to conduct effective interventions. EAP consultants commented that occasionally management personnel attempt to either pay lip service to organisational level problems, or insist that EAP consultants resolve recurrent problems that they themselves have ignored. When this occurs, consultants attempt to alert management to these problems so that management may learn how to resolve the difficulties. Some consultants would go to great lengths to make progress when proposing and implementing interventions, even in the face of bureaucratic barriers. A description of the theme is below.

I. Meat in the sandwich: (2) Overcoming organisational politics to bring about change	
Definition	EAPs must overcome politics in implementing interventions and change
Indicators/Flags	
	EAPs at times feel they are used by management when it suits them and are not acknowledged enough for valuable contributions to progress; EAP is still gaining acceptance and respect from management
	Organisational politics affecting change and lip service is sometimes beyond the EAPs' control
	EAP will do anything possible within their limits to help bring about organisational change and the well being of all staff, even when confronted with politics and agendas
Qualifications/Exclusions	
	Client information is kept confidential and clients respected – code as Meat in the sandwich: Managers and staff.

Examples of statements that supported this theme were:

> **(External) C2**: '*It's almost like we're seen to provide these services … and sometimes we are used as the too hard basket, so people will rather refer an*

employee to us then actually get their hands dirty and deal with it. Now, we're handing it back to them, back in their court, but it's a pity that they have to go through that process, and sometimes they are grateful when management intervene themselves. So this is a bit of a concern …and detouring through us…or a bullying situation or whatever rather than actually dealing with it; they'll say the individual has the problem and they need to go and talk with the EAP about it and learn how to deal with it, when they actually should be dealing with the fact that there is bullying in their department…so that concerns us at times when they are detouring and deflecting through the EAP rather than dealing with it directly'.

(External) C2: *'I think as times we get frustrated because we can see the bigger picture and we can see people getting caught up in the system, and we would like to have more of an impact on an organisational level, and sometimes we have an opportunity to do that.'*

The third theme, labelled *The go between*, focused on the role of EAPs in educating management and nursing staff about stress management via stress management strategies and interventions, while at the same time advocating and facilitating communication between management and staff. Although the internal agency consultants had more opportunity to carry out this role than the external agency consultants, the external EAP consultants indicated that they would also operate as 'the go between'. Both the internal and external agency consultants discussed mentoring managers and encouraging managers to help one another instead of competing against each other, as well as encouraging managers to provide feedback to nurses as a way to achieve better organisational outcomes. A description of the theme is displayed below.

I. Meat in the sandwich: (3) The go between	
Definition	EAPs Educate and advocate for management and nursing staff whilst facilitating positive communication and outcomes between parties.
Indicators/Flags	EAPs encourage communication between parties
	EAPs encourage communication between parties in conflict, and mediation is a last resort
	Management and EAPs need to communicate and work together for interventions to be successful
	Mentoring: Managers helping each other instead of competing with one another
	More positive feedback for nurses are needed
	Counselling and individual level interventions
	Organisational level interventions
	Educating and advocating for nurses
Qualifications/Exclusions	More management training required for nurse managers – code as organisational culture – 'The issues'

The comments made by the consultants in relation to Theme 3 included:

C2: '*…we might be writing a letter supporting someone to have leave without pay, and if they are not able to provide a reason, our support won't be asked by so we can do that.'*

'Apart from doing the counselling, we are doing education, we are doing advocacy, etc'.

<u>When discussing conducting mediation (internal):</u>

C1: '*…we don't like doing them. We don't want them.'*

C2: '*We always try to do the less formal, take it back to a lower level so it's a conversation rather than a mediation, take it back to where has it gone wrong, what's the problem and see if they can't go back and fix it themselves at an earlier point.'*

C1: '*It is down the track. Mind you, you get a lot of nurses, managers, clinical nurse consultants who say "I want to book a mediation" and I say*

it's not likely, and I have people who have said to me in other areas of the hospital "I want you to mediate," and I'll say "I'll look at them, I'll talk to them" and then I will decide if a mediation is appropriate. You see a mediation can be a very inflammatory, a very provocative process; what we really are is in lots of ways empowering the managers and people to do that it themselves or the people to do it themselves without going through all that….

In discussing providing feedback to nurses:

(Internal) C2: '*They're not forthcoming and you don't get the positive stuff around here a lot and nurses certainly don't get it a lot. We are trying to advocate more of that, a little feedback goes a long way, but they are slow on the uptake, that will take years, but getting along better.'*

The fourth theme entitled *Nurse early exit prevention*, focused on EAP approaches to minimising nurse early exit. The consultants discussed providing career counselling. They also discussed working with coordinators of graduate nursing programs to ensure that graduate nurses felt supported instead of exploited when transitioning from tertiary course placements to full time nursing work. The consultants reported that resignations were the last resort, and suggested that nurses whom may have already exited the nursing profession may have not sought assistance from an EAP. A description of Theme 4 is shown below.

I. Meat in the sandwich: (4) Nurse early exit prevention

Definition	EAP working towards preventing nurse early exit
Indicators/Flags	Vocation versus career: Career counselling and EAP involvement in nurse selection
	Early EAP intervention can prevent nurse early exit; Nurses whom do not seek the EAP may be the nurses who leave the profession
	Nurse exit is advised as a last resort for EAPs
	The EAP working with Graduate Nurse Program coordinators for the support and well being of new graduate nurses
Qualifications/Exclusions	Nurse exit due to work related issues – code as nurse transition and exit
	Nurse exit to prevent physical illness and burn out – code as self-care

Some statements made by the EAP consultants that supported this theme included:
When talking about graduate nurses:

> **(Internal) C2**: '*With hospital based training in the first 3 months you have a drop out rate when new nurses hit the wards for the first time, those who realise I can't do this or it's revolting left, and those who stayed most of those finished their training and continued working. That happens with the university training in that first year, they're 3 years and $10,000 down the drain and they don't feel they same the same options….*
> *'Because the hours they do on the ward are so low, it doesn't give them a sense of what it's like, it's very unpleasant. Wounds and burns can be quite …you never get that smell our of your head, and we have dead people!'*

> **(External) C2**: *'Regarding rostering, I've talked more with the graduate nurse coordinator then the program coordinator because I think that whether it's perception or not, it often seems that the last on gets the worse shifts at times, and sometimes that can be the last thing they need when they are struggling anyway to keep their head above water is to also have revolting shifts on top of that. Now that might be a perception as I say, but certainly the graduate nurses often believe that, that they get the less desirable shifts and that does overload them even more, so sometimes I will communicate that back to the coordinators that you need to be mindful of this.'*

The second meta-theme focused on personal issues that nurses presented to consultants and was labelled *The wounded healer*. The fifth theme was entitled *Life experiences*, and emerged from discussions with consultants about the personal history of nursing staff who had sought assistance from EAPs. As mentioned above with respect to the responses to Question 14, when compared to other professionals, the nursing profession was considered to comprise individuals who were more likely to have experienced childhood abuse, domestic violence, authoritarian family backgrounds, were provided with heavy responsibilities during early childhood, or have had a history or current experience with additions and co-dependency. A description of Theme 5 is displayed below.

B. The wounded healer (Personal issues in nurses) - Meta-theme 2

II. The Wounded Healer: (1) Life experiences	
Definition	Some people are drawn to nursing as a result of their personal background and experiences, such that there may be underlying issues for the choice of nursing; Nurses may have had different life experiences to people of other professions
Indicators/Flags	
	History of child abuse
	Abuse in current relationships and subservience
	Near death experience or death in the family
	Restrictions of career choice from family
Qualifications/Exclusions	
	Nurses thinking that they are selfish – code as self-care
	Subservient behaviours while on the job – code as self-care
	Family background with many siblings to look after – code as self care

Examples of statements made by the EAP consultants to support the fifth theme are:

> *'People are drawn to nursing for very unusual sets of reasons, and so we do get quite a high proportion of abused and assaulted women across the nursing fraternity; we get a fair amount of domestic violence and adult survivors child sexual abuse; people who have had awful and ugly things happen in their family life and that they've chosen nursing to make good, either someone died of cancer in their family or they were on a boat and everyone got burnt and they lived, it's those kind of stories for why people chose nursing; but there is quite a lot of vulnerability in nursing. There is also different stress levels amongst the professional groups, there are more smokers amongst nursing than there is in some other groups, certainly in the younger groups, but there are still left overs in the 50 and 60s group; there is a lot of obesity.'*

> **C2**: '*They are not good at looking after themselves.'*

'……so then when you assaulted by a patient or someone was attacked in a lift, you're not only dealing with that incident but with some other ugly incident. There is a the problem though that sometimes they pick inappropriate men, their choices of husbands, partners, boyfriends, they're boundaries are not quite right and that's tricky with dealing with some patients, so some of the conflicts and complexities that happen to the stressors of nurses are a lot of those sort of things, and they won't answer that sort of stuff in the questionnaire you've got, you'll get the rosters, and 'my nurse manager hates me.'

C2: *'If someone comes around you pretend everything's ok, nurses do pretend which is why if they believe the numbers are low, they won't say anything, they are trained, they're preconditioned, so if they've grown up on co-dependency they bring that model to the workplace.'*

The sixth theme, labelled *Personal issues*, focused on the types of personal issues that nursing staff typically presented to EAPs, and is displayed below.

II. The Wounded Healer: (2) Personal issues

Definition — Nurses present with personal issues to the EAP

Indicators/Flags

<u>Stress associated with:</u>

Domestic violence
Abuse
Relationships
Anxiety and depression
Pain management
Grief and loss
Work-home spillover
Financial issues
Looking after sick family members

Qualifications/Exclusions

Management of work-life balance – code as Work-life balance

Examples of statements made by the consultants include:

> **(External) C4**: *'Usually it's relationship based, and so often it may be that they are struggling in their relationship and that's impacting on how they are relating to other people at their work as well' ….*
> '*Often people have been injured at work, and so the grief around not being able to return to work, not getting similar shifts that they were before, of having different duties to the ones before; and the lack of finances that those lack of shifts give them.'*

Theme seven, labelled *Work-life balance*, focused on the necessity that nurses develop strategies for maintaining work-life balance, given that shiftwork may impinge on the home lives of many nurses. The consultants argued that nurses who fail to develop and consistently utilise effective coping strategies could develop chronic stress and exhaustion. A description of the seventh theme is shown below.

II. The Wounded Healer: (3) Work-Life Balance	
Definition	Nurses must learn to manage their work and home lives in order to reduce the risk of burnout
Indicators/Flags	Nurses must learn to use strategies to manage work and home life If home life is going poorly, so will work life and vice versa
Qualifications/Exclusions	Work-home spillover as a personal issue presented to the EAP – code as personal issues

Examples of statements made by the consultants that supported Theme 7 include:

> **(External) C4**: *'Usually it's relationship based, and so often it may be that they are struggling in their relationship and that's impacting on how they are relating to other people at their work as well' ….*
> '*Often people have been injured at work, and so the grief around not being able to return to work, not getting similar shifts that they were before, of*

having different duties to the ones before; and the lack of finances that those lack of shifts give them.'

Theme eight, labelled *Self-care,* described the propensity for many nurses to not seek self-care, and to cater to others' needs before their own in their work and non-work lives. These nurses were also described to be more likely to have high expectations of themselves and to make a great effort to 'give their all', which can lead to burnout and early exit for nurses who subsequently find it difficult to cope. This personal issue may ultimately lead to many nurses being unsuccessful in their role in the long term as they may fail to work towards replenishing lost energy and rejuvenating themselves. Withdrawal and avoidant behaviour in the form of addictions may also be a consequence of nurses attempting to cope. The consultants described these nurses as rarely fighting for their rights in their work and non-work lives. This subservient behaviour was often described as perpetuated by organisational culture. However, some nurses left particular nursing specialty departments in the interests of their own welfare.

II. The Wounded Healer: (4) Self-care

Definition	Nurses who are hard on themselves, do not look after themselves, or who resort to avoidant behaviours, may experience an increased burnout risk and early exit
Indicators/Flags	Nurses who exit to prevent physical illness in middle age
	Addictions and poor health in nursing
	Profile of nurses who 'put up with it' and put themselves last – subservient behaviours at work
	Many nurses are not good at looking after themselves
	Many nurses expect a lot from themselves and 'give it their all'
	Sufficient self-care is imperative for success in the job and job satisfaction in particular nursing areas
Qualifications/Exclusions	If nurse exit is a result of work related issues, and reasons to do with physical ability are not stated – code as nurse transition and exit

Statements made by the EAP consultants in relation to this theme were:

> **(External) C2**: '*They often come to me in a bad way because they are just trying to be all things for all people, and also because of the types of people that they are they are also giving to people in their personal life at a high level…they tend to be people that have fairly high expectations of themselves and others, tend to be somewhat perfectionists, and tend to be looking at meeting the needs of others and not for themselves'….*
>
> *'People throughout the helping professions tend to help themselves last, so I see a theme throughout and I see a lot of people in the health and welfare sector, they are the helper not the helpee so they find it difficult to ask for help or to acknowledge that they are struggling, so I tend to see people a fair way down the track. I would prefer to see them sooner and they are really in extremes, you can see that, so they need to be encouraged to not leave it so late and to explore avenues for help and to address things sooner and to think that they matter as well, rather than just putting all the priority on other people and being there for other people; but that's more of a selective process that people go through in those professions; they are not good at fighting for their own rights and looking after themselves.'*

The final meta-theme, labelled *Organisational culture: 'Pressure cooker'* comprised six individual themes that describe the organisational issues that were presented to the EAP consultants. Theme 9, labelled *Environmental issues (Work-related issues),* was a description of the most common work-related issues that negatively affected nurse health and well being. Consistent with the findings in the previous studies, both the internal and external EAP agencies listed similar work-related issues that represented nurses' most common concerns (as indicated below).

C. Organisational culture: 'Pressure cooker' - Meta-theme 3

The issues:

III. Organisational culture: 'Pressure cooker' (1) Environmental issues (Work related issues)	
Definition	Nurses present with work-related issues to the EAP
Indicators/Flags	
	Interpersonal conflict
	Bullying and harassment
	Mental health patients in non-psychiatric wards
	Low staff numbers
	Long hours
	Few resources
	Non-nursing issues inc. international doctors and excessive paperwork
	Conflicts with staff
	Consequences of making a workers compensation claim
	Management practices
	Inflexibility with rostering playing a large part in nurse job satisfaction and retention
	Work overload
Qualifications/Exclusions	
	N/A

Statements made by EAP consultants included:

> **(Internal) C1**: *'The issue of mental health patients and it's a whole other ball game; very inflammatory it's been over the years ….about putting all patients in together, but there is a lot more violence on the wards than there has ever been before.'*
>
> **(External) C3**: *'I think lack of funding impacts in a number of ways and probably in terms of facilities and quality of care is often compromised, so that compounds workload and therefore compounds stress; staffing numbers – I think they're quite key. One specific issue in terms of my*

experience with one particular hospital is harassment and bullying and, interpersonal conflict.'

The tenth theme: *Nurse transition and exit,* focused on the elements of the work environment that contributed to nurse departures. According to the consultants, nurses left organisations because of 1) stress and burnout associated with working in a particular nursing specialty area for many years; 2) ongoing conflicts with other staff or managers within a particular department (i.e., personality clashes or bullying and harassment); and 3) low staff numbers. In relation to nurse turnover, all consultants suggested that nurses are more likely to transition to other nursing departments or sites than move out of the nursing profession altogether. Theme 10 is shown below.

III. Organisational culture: 'Pressure cooker' – (2) Nurse transition and exit	
Definition	Nurse exit due to work-related issues in a particular specialty area, and the transition to another site/area; Nurse exit and transition does not necessarily pertain to leaving the nursing profession.
Indicators/Flags	
	May change to a different area due to the experience of burnout within a particular nursing specialty
	Nurses may leave nursing or transition to another nursing area due to ongoing conflicts with managers within a particular area, or bullying
	Nurses may leave a nursing area due to low staff numbers in comparison to other areas
	Nurses may not necessarily leave the nursing profession
Qualifications/Exclusions	
	Nurse exit to prevent physical illness for self care – code as self care

Some indicative commentary by consultants in relation to Theme 10 included:

(External) C2: *'Sometimes they might move to another area, and sometimes that's because of burnout or compassion fatigue from working in one area,*

and so sometimes people at least entertain the idea, I wouldn't say most of them do move, some come back to talk to me again and say I did finally make that move.'

C2: *'If people have had enough, I think that's a reasonable decision. There are people that reach our age and say 'it's too physical for me now, it's an acute care setting, I'm not going to get anywhere quiet, so if I want to be less physical I need to be working somewhere else.' I think that's a reasonable decision.'*

(External) C4: *'Most of them remain in the nursing profession; some of them may decide that they want to go and do some agency work to be more flexible, some people, very few, would say that they hate nursing and wish they had never got into it, but I think that's more about them then it is about the profession. I can't think about many people who would say I'm leaving and never going to do this again.'*

The eleventh theme, entitled *Organisational culture*, referred to consultants' description of how the hierarchical structure of the hospital system, as well as historical politics and cliques of the hospital setting may prove detrimental to the well being of nurses at all levels. The consultants discussed how the organisational culture may impact on how nurses work together and behave toward each other in situations of high stress, such as understaffing, nurses working overtime, few resources, as well as exposure to poor working conditions.

Many nursing managers were also expected to transition from a clinical/technical role to a management role with limited management training. This not only contributed to greater stress to the nurse managers themselves, it also compromised the nursing staff working under their supervision.

III. Organisational culture: 'Pressure cooker' - (3) Organisational culture

Definition Organisational culture (traditional hierarchical structure) and politics have a negative impact on nurses at all levels

Indicators/Flags

When staff numbers are down and other time or resource limiting situations occur many nurses may fail to support their colleagues, and may turn on each other due to stress

When staff numbers are dangerously low, nurses may be used to working at maximum capacity for long periods of time. In this circumstance they may not communicate safety risks to management

Organisational culture may prevent nurses from seeking support

Nurses do the hard yards in some hospital settings

Nurse managers can be negatively affected and be 'in the sandwich' between nurses on the floor and management

Nurses may wish that they could relate to and do more for patients and that they had more resources to do their (clinical) job to the best of their ability, as is necessary for success and job satisfaction

Management need more training and support

Qualifications/Exclusions

N/A

Examples of statements made by consultants in relation to Theme 11 included:

(External) C3: *'Often hospitals are entrenched in history and you will actually see the difference between the four major (public) hospitals, there are actually cultural differences, and I think that has a lot to do with their history. Also within the cultural aspects, a lot of the hospitals still operate to very traditional and hierarchical models and I don't think that that necessarily facilitates good work satisfaction.'*

'The other thing is that more and more hospitals are being run by business managers, which conflicts with the clinical areas, and so you have business managers, and nursing managers that are clinically capable or competent, and then they have to somehow manage a service together or a department together.'

C1: **'**…*They often don't see grief, stresses, alcohol abuse. They are too busy, and they are so busy it's not funny, they are a very pushed and*

demanded upon group, but all those things that add to the dynamics, the difficulties, ….'.

C1: *'…..and that's where that nastiness between each other is prevalent, 'she doesn't have to do all the lifting, and we've got more work to do because she's on Workcover.'*

C2: *'and they count it in the numbers.'*

The twelfth theme, entitled *The Organisation and retention*, described the positive features of organisational system processes and organisational culture, and how these affected the occupational health and well being of nurses. These included an acknowledgement by consultants that the five hospitals sampled do have systems in place that provide nurses with support and opportunities to improve their work performance if they were at risk of termination. Although confidential, formal referrals were marked by consultants as a positive element of healthcare organisations that served to retain valued staff while avoiding organisational costs. A description of Theme 12 is shown below.

The positives:
III. Organisational culture: 'Pressure cooker' - (4) The organisation and retention

Definition	The organisation goes to great lengths to retain nurses who are under performing
Indicators/Flags	The organisation tries to support nurses and retain them in the case of formal referrals for poor performance
Qualifications/Exclusions	N/A

A comment that supported the theme was:

(Internal) C2: *'Someone who is underperforming or not performing well will often be referred to us and my experience is that the organisation bends over backwards to help and they are provided with additional training, support, there can be someone one on one…If they end up leaving or they are terminated it's not without a lot of effort on the organisation's part.'*

The thirteenth theme, labelled *Advantages of a hierarchical structure*, described the advantages of a hierarchical structure on the physical and emotional safety of nurses, and on other occupational health and safety risks. Access to management during times of emergency, more accountability, better access to quality training, and in principle, less bullying, was expected to result from a hierarchical as opposed to a flatter organisational structure. A description of Theme 13 is shown below.

The positives: **III. Organisational culture: 'Pressure cooker' - (5) Advantages of a hierarchical structure**	
Definition	Hierarchical structure allows greater access to management, accountability, and safety
Indicators/Flags	Quick access to management staff (i.e., for emergencies and other safety concerns) Better access to quality training
Qualifications/Exclusions	N/A

A comment that supported this theme was:

> **(External) C4**: *'….I think a hospital setting seems to be more structured because there are more people involved, and also people who have been through the ranks and have some management experience to understand things... I also see that because it is small, a lot of nurses in aged care facilities often feel ostracised and can be bullied because there is less structure there and less accountability, and its more open to cliques. "I've been here for a long time and who are you to tell me what to do"- that kind of thing...also lack of training in the aged care facility.'*

The last theme, entitled *Training and support for nursing staff* described consultants' opinion that there is a need to provide graduate nurses, existing nursing staff, and nursing managers with adequate training and support. Adequate training was considered to be necessary to promote nurse job satisfaction by enabling professional development. In the opinion of the consultants, existing nursing staff

may also benefit from training in content associated with particular nursing specialties with which they might be unfamiliar.

It was also suggested that adequate professional training may aid in minimising stress experienced by graduate nurses during their first experience on nursing wards, as well as in minimising stress experienced by clinical nurse managers with limited managerial experience.
A description of Theme 14 is displayed below.

The positives: **III. Organisational culture: 'Pressure cooker' – (6) Training and support for nursing staff**	
Definition	Nurses would benefit from more training and education
Indicators/Flags	Opportunity for professional development is important for many nurses Graduate nursing program nurses may 'feel out of their depth' and pressed when initially introduced to the health care system Nurses who are untrained in relation to particular nursing specialty areas are often asked to cover the shifts of nurses from those specialty areas; The content and patient mix are unfamiliar
Qualifications/Exclusions	EAPs working with coordinators of graduate nursing programs – code as *Nurse early exit prevention.*

Excerpts from the discussions with consultants that supported the final theme were:

> **(Internal) C1**: *'A client of mine was attacked by a patient. I believe the patient became psychotic long before she assaulted my client, but no one recognised it because they are not mental health nurses. They've had no training. We didn't put any input into training'.*
> **C2**: *'…and they feel out of their depth, they don't know, they don't have the information, and don't believe they should. If you went to work in cardiac and you were a general nurse, they would give you training, there is a workbook and competencies you would have to achieve…none of that with mental health, not even recognising it as a specialty in it's own right, and they have been left to cope.'*

(External) C2: *'Another issue I see with the graduate nurses that come through is struggling to make that transition between their training and practical aspects of work. I think that whilst I don't make a judgement about the different styles of training, what has been lost is that sort of apprenticeship, the hands on and helping them gradually become exposed to various things, so they are having the firsts of everything including responsibility and they don't really have a lot of fall back on….'*

8.1.5 Inter-reliability of the research conducted

To assess inter-rater reliability in a qualitative sense, the same analysis was conducted via a second coder, and a kappa reliability coefficient was calculated. The kappa value attained was appraised according to recommendations made by Boyatzis (1998) and Cohen (1960).

The prevalence of the themes identified in the EAP consultant interviews, as coded by both the primary and secondary coder are provided in Appendix 8.2
The kappa coefficient, a measure of inter-rater reliability, was high (K=.84), indicating high inter-rater reliability.

8.1.6 Group discussion interaction data analysis

Given that the internal EAP consultants preferred to be interviewed via group discussion, the group interaction was analysed in line with some of the principles of focus group interaction provided by Duggleby (2005), Carey (1995), Carey and Smith (1994) and Wilkinson (1998). There was a tendency for the least experienced consultant to speak less, use humour and support the themes introduced by the other two consultants. The most junior consultant appeared to be expected to address matters that were central to his/her role in the unit. The second least senior consultant was more vocal than the former, used humour, appeared to be confident to dissent from the most senior consultant when required (although supported the ideas introduced by the others most of the time), and was interrupted a number of times by the most senior consultant. The most senior consultant had a tendency to introduce

ideas and advocate for the credibility and comprehensiveness of the unit's work, was equally vocal with the second most senior consultant, used humour, and was also occasionally interrupted by the second most senior consultant. Overall, it appeared that all consultants, particularly the most senior consultants, built on and encouraged each others' ideas and responses throughout the discussion. A distinct status imbalance was observed between the least senior consultant and the other consultants, with regard to responses made and level of agreement.

8.1.7 Attention to negative cases

Following Mays and Pope's (2006) recommendations on assessing quality in qualitative research, the researcher analysed the transcript data for negative cases. Only one idea was observed that appeared to contradict the emerging explanations of all other consultants with regard to nurse burnout. The consultant in question indicated that the nurses he/she had seen as clients were not burnt out, as elicited by the statement:

> *'You've got to be on fire before you can burn out. I think when people are very passionate about their work they really give it their all and so I think often nurses can give it their all and they do get very tired, and I think that I can't answer that really well because I can't think of anyone who jumps to mind right now to say that they felt burnt out. Nothing comes to mind although people do get tired this time of year but I wouldn't say that's burn out…'*

This opinion was worthy of note, given that one of the questions of the structured interview asked the consultant to provide contributors to nurse burnout, alluding to the researcher's preconceived ideas that nurses experience burnout. However, apart from this deviant case, the majority of data obtained (including data obtained from the first two studies conducted) indicated that many South Australian hospital nurses had experienced burnout.

CHAPTER EIGHT
DISCUSSION OF STUDY THREE

8.2.1 Introduction

This study involved a detailed qualitative study of the views of Employee Assistance Providers (EAPs) who have offered services to members of the health profession, including nurses. The research had three principal aims. The first was to examine EAP consultants' perceptions of the factors that they felt most affected or caused occupational stress in nurses. A second aim was to examine EAP views concerning the most appropriate preventative as well as treatment/reactive solutions for the nursing profession. A final aim was to consider the implications of the findings for organisational-level change relevant to the management or reduction of nurse work stress.

8.2.2 Significance and implications of the findings for EAPs, nursing staff, hospital management and the nursing profession

The significance and implications of the themes of this study will be discussed in the order of greatest relevance to the research questions.

Theme III. (3) (Organisational culture):

The results showed that nurses are often not encouraged to seek assistance during times of high stress and are often expected to solve their problems on their own. These problems appear to be perpetuated by the traditional hierarchical structure of hospital settings that often do not acknowledge the benefit of help seeking and teamwork among the nursing sorority. Such problems appear to be occurring at all levels. For example, clinical nurse managers are expected to make the transition from technical based clinical skills to business management skills with little or no training.

Theme III. (1) (Environmental issues):

Many important workplace environment issues were identified in the interviews. These included violence between staff and their superiors, horizontal violence between nursing staff, isolation and hostility, as well as minimal or ineffective social support, communication, understanding and empathy in times of high stress. As discussed in previous sections, many nurses have become resigned to work under

conditions where there are very high demands, limited resources and low staff numbers.

Themes I. (2) and (3) (Overcoming organisational politics to bring about change & The go between):

EAP consultants are often caught between the conflicting demands of both employers and employees of an organisation and may operate as the go between managers and staff members. This situation often leads to delays, impediments or barriers to progress in resolving individual or organisational level problems as a result of management personnel simply paying lip service to what are perceived to be recurrent and serious organisational level problems by employees. If higher management agree to make a commitment to work with EAP personnel toward a common goal it is likely that management may be motivated to implement organisational level interventions themselves. The expectation that EAP providers resolve all types of organisational level problems that arise may therefore be reduced. In effect, both management and staff concerns are more likely to be addressed or resolved if management is willing to collaborate with EAPs.

An interesting finding was that, according to the EAP consultants, formal mediation is not an effective strategy (or resource) for resolving interpersonal conflict among employees, irrespective of whether the conflict is of a low or high intensity. The consultants claimed that formal mediation should be a last resort, with the facilitation of informal communication among employees as a first step to resolving interpersonal conflict between parties. This finding is in direct contrast with survey research in the UK that suggests that of organisations that provided mediation, three-quarters of respondents considered mediation to be the most effective approach to resolving conflict in the workplace (Chartered Institute of Personnel and Development: CIPD, 2008). However, proponents for formal mediation note that formal mediation is most effective when used in the early stages of conflict between parties.

Theme II. (4) (Self-care):

Self-care is very significant for nurses and it is imperative that nurses seek assistance wherever possible. The issue of self-care is particularly significant for nurses given

the history of subservience of the nursing profession (often perpetuated by organisational culture). As discussed by the EAP agency consultants, positive outcomes have resulted from educating nurses about seeking help to address issues such as bullying and harassment and other co-dependent and subservient behaviours.

Theme I. (1) (Gaining credibility and trust from both management and nursing staff on the floor):

It is clear that nursing staff and managers who feel confident that confidentiality is maintained between EAPs and clients are more likely to embrace EAP interventions. It is therefore necessary for EAPs to gain trust and credibility from organisations they service in order to influence workplace changes and to be considered as a worthwhile stress management resource, particularly at the organisational level. This view is consistent with the views of Kirk and Brown (1999, 2001).

Theme III. (6) (Training and support for nursing staff):

The study also suggests the need for the implementation of more training and support measures for nursing staff, a view that supports the findings of White (1996) and Duffield *et al.* (2007). Formal training should be provided regularly in addition to the current in-service training provided. There should also be training modules in speciality areas for which nurses are unfamiliar, given that nursing staff are frequently asked to cover areas for which they have limited training. Employers of healthcare organisations must recognise the threat to their workforce caused by poor management practices. The findings of this study indicate that complications for the nursing workforce have arisen due to poor management practices and leadership and that a lack of training has led to higher rates of staff turnover and work-related stress.

Themes II. (1), (2) and (3) (Life experiences, Personal issues & Work-Life balance):

This study also supports previous research that has depicted nurses as "the wounded healer archetype" (Gaydos, 2004; Laskowski & Pellicore, 2002). One implication of this observation is that trained clinical psychologists or other mental health professionals with training in trauma, grief and rehabilitation counselling may be better prepared to target the personal issues that nurses may present. Much of the

stress experienced by nurses is likely to arise from an interaction between situational and personal characteristics.

Themes III. (4) and (5) (The organisation and retention & Advantages of a hierarchical structure):

This study highlighted the ways in which hierarchical structures within hospital settings may also benefit staff. Existing strategies for retaining staff at a formal level are of great value. Further, strategies that target nurse retention at an informal level such as facilitating communication between employees and superiors may further enhance current organisational support services that are offered to nurses in hospital settings.

In effect, the positive factors associated with hierarchical organisational structures could be embraced, whereas changes to facets of the hierarchical structure that contribute to problems for nurses could also be undertaken. For example, positive aspects of the structure (e.g., accountability of staff) could be used to ensure that work-related problems that may arise (e.g., bullying, poor management practices and unnecessary increase in workloads) are monitored and resolved accordingly.

8.2.3 Strengths of the study

The use of a qualitative study for the purpose of triangulation of the survey designs allowed the researcher to further confirm, qualify and elucidate the context surrounding the previous research findings. This provides a suitable baseline for future research that seeks to build on this topic. Second, the study included a focus on nursing as an occupational group, allowing an in depth source of information from the EAPs rather than a general snapshot of EAP perceptions on the topic of occupational stress. A focus on EAPs who service nurses had not been previously researched. Third, the EAPs sampled were selected according to their link with the hospitals sampled in the first and second studies. Finally, the Conservation of Resources Theory (COR) was useful in interpreting and providing an account for the findings at an individual, team and organisational level. The themes presented, particularly those listed under the second and third meta-themes, were aligned with the premises of COR theory (representing demands leading to losses and resources to offset those demands). In addition, the first meta-theme reflected how the approach of EAPs to

individual and organisational level issues could influence individual and organisational level change.

8.2.4 Methodological considerations

First, the EAP consultants' interpretations of phenomena such as stress and burnout were not initially sought by the researcher prior to asking the structured interview questions (Briner & Reynolds, 1999; Jones & Bright, 2001; Kinman & Jones, 2005). Second, the researcher did not seek information with regard to how the EAP agencies evaluate their interventions, as well as what they perceive to be effectively designed stress management interventions (Briner & Reynolds, 1999; Cooper & Cartwright, 1994). Third, preconceived ideas held by the researcher following completion of the first and second studies, in addition to previous knowledge with respect to the occupational stress literature, may have influenced the formation of the structured interview questions. Finally, the use of semi-structured questions in the place of structured questions would have resulted in greater difficulty in comparing responses between EAP agencies.

The issue of possible bias with regard to the interpretation of the data was rectified with the assessment of inter-rater reliability. The original structured interview questions were also discussed with researchers with expertise in the area of occupational stress prior to the final draft.

Other limitations relate to the influence of the demographic characteristics of both the researcher and the respondents on the responses obtained (Taylor, 2005), despite the fact that there are little means of finding the extent to which personal characteristics of the researcher may have altered respondents' reactions. The differing specialisations and roles between the consultants may have also influenced the responses. It is possible that the consultants, with different areas of expertise and experience, may have responded differently to the structured interview questions. For example, opinions concerning the most effective interventions differed slightly between respondents, depending on whether a consultant's role was to perform individual compared to team or organisational level interventions. These differences were taken into account during data analysis. However, there may have been other attitudes (influenced by experiences, roles and the specialisation of consultants) that

may have been overlooked by the researcher, and which may have influenced the data obtained.

The internal agency consultants were interviewed via group discussion (upon the internal agency consultants' request), whereas the remaining external consultants were interviewed individually. This change in methodology also potentially influences the results in that the material elicited from group interactions may have differed from that of individual interviewing techniques (Duggleby, 2005; Wilkinson, 1998). It is known that group interaction data is vulnerable to issues such as authority and power between participants, experience, other idiosyncratic differences between participants, as well as the question style of the interviewer.

The results of this study are limited to the internal and external EAP agencies linked to the acute care hospitals sampled, and may be generalised to Australian EAP services. With little comparison data, it is not known whether these results are applicable to EAP agencies overseas.

A final limitation is the comparatively low sample size of participants when compared to other qualitative based research studies. The EAP agencies that were chosen were those servicing the hospitals sampled. However, overall, it would have been advantageous if more acute care hospitals and therefore more EAP agencies servicing those acute care hospitals were sampled. This would have increased the validity of the findings, although was not possible within the scope of this thesis.

8.2.5 Comparison of the current study findings with those of other studies conducted in this thesis

The use of a qualitative-based methodology in this study permitted an alternative perspective to that obtained through the use of a quantitative-based methodological design. The majority of the findings of this study validate the findings of the first and second studies. The themes *work-family balance, self-care, environmental (or work-related issues), organisational culture and nurse retention, and training and support for nurses* provide narrative illustrations of the issues that were found to be significant among hospital nurses in the first and second studies. For example, the consultants all

drew attention to the link between work to family conflict and burnout and job dissatisfaction identified in the first and second studies.

In addition, the significant associations found in the first studies between social support and outcomes such as work-related burnout were validated by the perspectives of the consultants of the link between self-care, the organisational culture in relation to social support and outcomes such as burnout. For example, the consultants discussed how limited social support, poor individual practices of self-care and poor management practices are exacerbated by tight working conditions and how negative organisational culture can in turn, lead to stress, burnout and job dissatisfaction.

The EAP consultants argue that nurse retention is likely to be dependent on whether nurses can cope under difficult environmental conditions, the availability of resources, as well as by how management practices are perceived by nursing staff. This perspective was also highlighted in responses to the final question of first and second study questionnaires. These responses pertain to the likelihood that nurses would remain in the profession in light of the current working conditions in hospital settings, depending upon the level of social support that they receive. In addition, EAP consultant perspectives on time constraints and tight working conditions in hospital settings are comparable to the responses made by nurses in the second study in relation to emotion management in the nursing role (second vignette scenario). Lastly, the findings in this study supported the findings from the third vignette scenario of the second study; namely, that nurses are likely to be absent from work or leave their organisation should their managers appear to be incompetent and non supportive.

Finally, issues including the need for additional nurse training for nurses who are working unfamiliar nursing specialty areas, as well as the presence of mental health patients in non-psychiatric wards were raised in all three studies. On the whole, the results of this study validate the results of the first and second studies. It is clear, then, that the issues discussed are highly relevant to the nursing profession.

8.2.6 Application of the Conservation of Resources Theory (COR) to the current study findings

The findings of this study support many of the principles and corollaries of COR theory. First, it appears that the organisational culture of many healthcare organisations discourage nurse support seeking behaviour. A limited access to social support in the face of excessive demands on the job, and in addition to a reduced capability for nurses to maintain a work-life balance may contribute to a *loss spiral*. According to COR theory, a *loss spiral* may follow from significant resource investments that result in little or no resource gain, including the attempted compensation or substitution of resources to match demands. This *loss spiral* may escalate until individual nurses decide to use, often unhealthy, measures of coping and may result in the development of burnout and/or to the termination of his/her position (Hobfoll, 2002; Schwarzer, 2001a).

Nurses appear to be constantly vulnerable to resource loss. They may therefore benefit from access to resources that sufficiently match work-related demands in order to reduce the impact of those work-related demands. Further, availability of suitably matched interventions in the face of loss would enhance nurses' capability of acquiring new resources, according to the first and second corollaries of Hobfoll's COR theory (see sections 2.4 and 2.5). Positive outcomes could result from effectively designed interventions that target occupational stress and may lead to increased availability of support services. Access to effectively designed stress management interventions, and in particular, to preventative interventions, ensure that resources are constantly available for employees and allow employees to proactively prepare against the threat of, or actual, loss.

The principles of the Conservation of Resources Theory can be used to design effective interventions for nurses (or for other occupational groups) or to recognise the value of existing interventions. For example, problem based counselling is often applied by EAP agency consultants. Problem based counselling involves the active participation in problem solving and decision making on the part of the client, and is an application of the principles of COR theory. Clients are encouraged to locate the logical facts of occurrences, including the 'who, what, where, why and how' of

problems. They are also encouraged to identify the costs and benefits of options available to resolve the presented problem. Therefore, clients actively participating in this problem solving approach are able to focus on the veracity of situations, assess current resources available to cope with problems, as well as examine any losses or gains that may likely eventuate from pursuing particular courses of action (Thompson & Cooper, 2001). In effect, interventions could be more successful should COR theory be taken into account in the design of interventions.

In relation to the EAPs considered, the EAP consultants appeared to operate as a resource for their clients. They claimed, on account of their level of experience, professionalism as well as relationships with staff and management, to be capable of resolving resource loss by providing resources at both individual and organisational levels. However, a paradox remains. While the EAPs were able to fulfil the function of resource for nursing staff, they were also remunerated for their services by the organisation and, in a similar vein, responded to management. Therefore, the question of whom EAPs serve is worth considering, particularly given that this inconsistency is likely to influence organisational change in hospital settings.

CHAPTER NINE
CONCLUDING OVERVIEW

9.1.1 Introduction

This thesis examined occupational stress and strain in nurses from a psychological perspective. The purpose of the first two studies was to examine the predictive power of Hochschild's (1983) *emotion labour* and Strazdins' (2000) *emotion work* performance concepts on the outcomes measured. The first study was focused on the identification of stressors and resources amongst public hospital nursing staff, as indicated by nurses. Salient stressors and resources found in the first study were then examined further using a similar methodology, in a smaller sample of private hospital nurses. Emphasis was given to the Conservation of Resources Theory (COR) to account for the findings. The primary aim of the final study was to explore the topic of occupational stress amongst nursing staff from the perspectives of Employee Assistance Providers who serviced the hospitals sampled in the first and second studies. A second aim was to elucidate the findings of the first and second studies. This chapter provides a brief discussion of the main findings of these different studies, the interpretation and implications of the findings, as well as some suggestions for future research.

9.1.2 The main findings

The results of study 1 and 2 showed that *emotion work* performance (operating as a resource) buffered relationships between psychosocial variables such as the availability of social support, and outcomes such as work-related burnout, resulting in a decrease in the effect of negative outcomes. On the other hand, *emotion labour* performance (operating as a demand) was found to be associated with more negative outcomes, such as work-related burnout. In particular, *emotion work* performance was directly linked to a reduction in negative affect and patient-related burnout, and indirectly linked to low depression, stress, personal and work-related burnout and job dissatisfaction. *Emotion labour* performance, however, was both directly and indirectly linked to low positive affect, and higher depression, stress, personal, work-related and patient-related burnout, and job dissatisfaction.

The first study also examined differences between nursing specialties in relation to *emotion labour* and *emotion work* performance as well as the effect of *emotion labour* and *emotion work* on psychological outcomes (see Chapters 3 and 4). It was found that nurses working within specialties such as oncology, general medicine and cardiovascular services where there was more interaction with patients performed more *emotion work* than *emotion labour*, whereas orthopaedics and emergency service nurses were more likely to perform *emotion labour* than *emotion work*. Likewise, oncology, general medicine and cardiovascular nurses indicated stronger levels of job satisfaction and lower levels of negative outcomes such as burnout, than did their counterparts. It is proposed that stronger nurse-patient relationships and the opportunity for greater authentic emotional expression contributed to these findings. Overall, *emotion work* performance appears to buffer the effect of stress, or at least, is less of a psychosocial demand than the performance of *emotion labour*.

The findings of Study 2 showed that the *suppression of negative emotions* appears to play an important role in increasing the risk of negative health outcomes among private hospital nurses if frequently performed during work duties. In addition, the *feigning of positive emotions* indirectly influenced work-related burnout via *suppressing negative emotions*. In other words, the excessive *suppression of negative emotions* as well as *feigned positive emotion expression* may increase the risk of negative outcomes and resource drain.

This study detected statistically significant associations between *companionship* performance and psychosocial variables such as autonomy, social support from supervisors and colleagues and family to work positive spillover. It was found that *companionship* performance operated as a mediator in the relationships between social support from supervisors and autonomy and patient-related burnout. This indicates that *companionship* with patients, coupled with the availability of social support and a high level of autonomy, may buffer the effects of patient-related burnout among hospital nurses.

Similarly, *regulation* performance is also directly associated with the availability of social support from supervisors and co-workers, as well as with autonomy. Although *regulation* performance did not operate as a mediator or moderator in the second study, as was seen in the first study, the potential for regulation performance to reduce the negative impact of long term negative effects still appears to hold.

On the whole, *emotion work* performance appears to be less detrimental for nurse occupational health than *emotion labour* performance in that the direct links between *regulation* performance and work-related burnout were weaker than links between *suppressing negative emotion*s and work-related burnout. Further, as revealed by mediation and moderation analyses, *emotion labour* performance was more likely than *emotion work* performance to be related to stress and burnout.

9.1.3 Interpretation and implications of the findings

First, the COR theory appears to be consistent with the findings with respect to South Australian hospital nursing staff. The theory had good explanatory power and was robust for this population, and was significantly comprehensive. The COR theory is appropriate for nursing as an occupational group for the following reasons:

1) the previous literature has successfully applied the COR theory in similar populations (Brotheridge & Lee, 2002; Wright & Cropanzano, 1998);
2) the theory allows flexibility for consideration of a wide range of factors;
3) the theory provides due weight to research in the area of occupational strain that considers resources (in lieu of simply demands or stressors); and
4) the theory provides a more explicit assessment of resources that may be overlooked by other theories.

Second, the significant relationships between emotion work, and in particular, emotion labour, with key outcome variables, suggest that the emotional dimension is an important consideration in nurse management.

The first study identified six resources for hospital nurses. These included work to family and family to work spillover, social support from supervisors, colleagues, and family and/or friends, and *emotion work* performance. The results of the first and second studies support Hobfoll's (1989) assertion that acquired resources beget the acquisition of additional resources, provided that a sufficiently large resource pool can be developed. For example, in the first study, the availability of social support from supervisors may have enabled resource gain by permitting the opportunity to perform regulation, which in turn, minimised the effect of work-related burnout. However, currently the nursing profession is facing many demands, both in work and non-work contexts that may outweigh the benefits of any available resources and lead to a loss of resources.

It is not surprising that *emotion work* in the form of *regulation* performance contributed to both a reduction in the impact of positive consequences, as well as an increase in negative outcomes, given that *regulation* performance and *suppressing negative emotions* may both comprise the expression of emotions that are not actually felt. However, the motivation for the performance of *emotion labour* and *emotion work* is different. The performance of *emotion work* serves to benefit the patient as part of a meaningful relationship between the employee and the patient, whereas *emotion labour* is performed purely for the benefit of an organisation. Given that *regulation* performance encompasses a mixture of felt and unfelt emotions, the frequency of authenticity versus inauthenticity of emotional expression will ultimately determine the outcome. Consequently, *regulation* performance may operate as a resource in that it is less likely to lead to negative health outcomes in the shorter term than *emotion labour* performance, or to be as intensely damaging as is *emotion labour* performance. The findings therefore indicate that performance of *regulation* in lieu of *emotion labour* is the better option for nurse well being.

As in the first study, *regulation* performance did not correlate with trait anxiety, whereas the relationship between *emotion labour* variables and trait anxiety was statistically significant. Due to the use of a cross sectional study design it is unclear whether those with higher trait anxiety are likely to perform *emotion labour* more often, or whether constant performance of *emotion labour* increases the

experience of trait anxiety. In any case, these findings suggest that *regulation* performance may be perceived as a resource as opposed to a stressor amongst nurses.

The opportunity to perform *emotion work* may enable nurses to provide patients with adequate and holistic clinical care, in line with the claims of previous researchers (Aiken *et al.*, 1994; Duffield & Wise, 2003; Duffield *et al*., 2007; Farrell, Bobrowski & Bobrowski, 2006; Henderson, 2001; Staden, 1998). On the other hand, excessive use of this resource may be a problem. For example, too much *emotion work* performance may be emotionally taxing. Over-involvement emotionally with patients and colleagues may have detrimental consequences for nurses, and lead to emotional exhaustion. In addition, resources such as social support may be short-lived for ongoing sufferers of occupational stress, and the ongoing use of particular resources may prove to be less effective over time (Hobfoll, 2002).

In study 3, the results indicated that the principles of COR theory can be applied to stress management interventions involving nursing staff. Hobfoll (1989) argues that psychological stress will occur in one of three instances: (1) when individuals' resources are at threat, (2) when individuals' resources are actually lost, or (3) where individuals fail to gain sufficient resources following a significant investment of resources. In the nursing workforce, the constant threat of a loss of resources is a reality. If the cause of stress is known, it is appropriate that managers and employers prevent this situation by contributing to the development of primary interventions. Hobfoll (2001) states that proactive coping could be achieved by (1) 'striving to acquire and maintain their resource reservoirs, (2) acting early when first warning signs of some impending problem are evidenced, and (3) by positioning themselves through selection in circumstances that fit their resources or otherwise place them and their family or social group at an advantage' (pp. 351-352).

The first principle of COR theory states that: 'resource loss is disproportionally more salient than resource gain', but it also argued that 'in order to 'gain' or 'protect' against stress prevention, people must invest resources in order to protect against resource loss, recover from losses and gain resources' (Principle 2). This statement may apply to managers and employers who are more in control of resource investment on a large scale than employees. Consequently, primary

interventions may serve to prevent loss spirals that are caused by the experience of losses and which contribute to employees feeling less able to cope with future demands. Resource gain, or rather, the acquisition of useful resources, enables further resource gain. These concepts are described further by reference to the corollaries of Principle 1, for example, Corollary 1 which states: 'That those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain. Conversely, those with fewer resources are more vulnerable to resource loss and less capable of resource gain,' Corollary 2 states: 'Those who possess resources are more capable of gain, and that initial resource gain begets further gain. However, because loss is more potent than gain, loss cycles will be more impactful and more accelerated than gain cycles.' It is therefore crucial that primary interventions are applied before secondary or tertiary interventions, in tackling work stress.

In relation to secondary and tertiary interventions, implementing interventions to target a particular cause of stress and therefore providing a resource for workers may produce 'resource caravans'. Hobfoll (2001a) indicates that a resource that best matches a particular demand is more likely to be sourced from a larger pool of existing resources than a smaller pool. For instance, in the context of nursing, providing assertiveness training may encourage the acquisition of additional resources, such as better relationships with co-workers or nurses self-advocating for a more suitable working schedule.

On the whole, the respondents who reported greater positive affect, job satisfaction and affective commitment were more likely to have also acquired resources such as social support and autonomy, and were able to maintain rewarding relationships and reciprocity via the performance of emotion work. These respondents also reported lower levels of strain compared with their counterparts.

The COR theory could be used to explain how the availability of social support, autonomy and *emotion work* performance can, via mechanisms such as resource substitution, resource replacement or resource caravans, be acquired, conserved or invested in order to build a resource pool. For instance, the opportunity for nurses to use existing resources to offset particular psychological demands, by matching particular resources with those demands, can enable them to acquire new

resources. This may therefore result in an accumulation of resources, or resource caravans, that in turn, lead to a gain spiral (Hobfoll, 1989, 2001a, 2002). This gain spiral could offset negative health outcomes such as stress and personal, work and patient-related burnout in the longer term. In order for an individual to gain resources, existing resources must be invested in anticipation of the acquisition of future resources (Hobfoll, 2001a, 2002). Nurses who obtain rewards from providing emotional care will seek to invest resources in order to achieve future resource gains, and may become frustrated when resource investment of this kind is limited. On the other hand, nurses may be attempting to limit resource investment in order to conserve their existing resources and avoid further depletion of their resource pool. This situation is likely to occur where nurses do not experience reward from providing emotional care, or in the context of burnout.

The findings of this research also suggest that, in response to stress and burnout, nursing staff may decrease their working hours before considering lodging a workers compensation claim, resign, or otherwise start taking absences from work. As COR theory proposes, individuals will attempt to gain resources should they be available, and will otherwise attempt to protect themselves from a threat of, or actual resource deterioration, by leaving the workplace as a last resort.

9.1.4 Future research

There is no doubt that the Australian nursing population requires additional attention and support in order to address the significant challenges encountered in nursing work. This thesis set out to identify some of the resources applicable to hospital nursing staff that might enhance the role of nurses. In particular, this thesis focused on the construct of emotion work performance, and discovered emotion work performance as a resource. It was concluded that enhancing the availability of resources that can be beneficial for nurses (e.g., social support, autonomy) is crucial in order to assist in the retention of nursing staff and for nurses to remain in good psychological health. It should be noted that it is the change in resources, rather than the amount, that causes stress to an individual and that resources are only effective in minimising or preventing loss if they are able to offset negative effects of particular demands associated with the loss (Hobfoll, 1989, 2002).

Although beyond the scope of this research, the field of organisational psychology would benefit from future research that examines the effect of resources that are matched or otherwise used to target specific demands. In a similar vein, it would be useful if specific interventions, based on these links were also explored. Other than Hobfoll's (2002) work, the Triple Match Principle, based on de Jonge and Dormann's (2006) research on the Job Demands Resources model, supports this conception.

In future research, it is preferable that stress management interventions are tailored to meet an organisation's goals and needs (Reynolds & Briner, 1994). In order to do this, an initial assessment of the risks that characterise the problems experienced within an organisation is required. This should be followed by a decision to design and implement a suitable intervention based on the results of the initial assessment (Cox *et al.*, 2000). It is also preferable that objective measures in addition to self-report designs are used in future research, given that subjective ratings of job conditions have been found to be limited in their predictive power in relation to objective job conditions (Dollard, 1996; Jones & Bright, 2001).

The findings of the third study brought to attention the need for improved communication between nursing staff, more encouragement for nurses to seek self-care and social support, and improved management practices. Future research in the area of nursing would benefit from the design, implementation and follow up evaluation of interventions designed to target these problems within the nursing workforce. For example, a longitudinal evaluation of a management training or coaching intervention program for clinical nurses would contribute new knowledge with regard to the effectiveness of currently available interventions for improving nurse occupational health.

It is imperative that interventions that are implemented are evaluated for their effectiveness, preferably using a longitudinal design. A section of this thesis focused on the need to adequately and routinely evaluate interventions. Without these evaluations, researchers, practising psychologists and other occupational health professionals will be unable to determine the effectiveness of implemented

interventions. At the present time, the most favoured type of research evaluation design is the randomised control trial. However, this design requires the approval, involvement and enthusiasm of unions, management, key personnel and employees. This type of support, however, is not always feasible. Accordingly, it would be useful that future research explore ways to achieve the support of different stakeholders to enhance the methodological rigour of work stress research. For example, the importance of identifying and responding to key work stress factors be incorporated into management training for all aspiring managers.

Given that this study did not investigate how the EAP agencies evaluated their interventions, future research could investigate Australian EAP evaluation of interventions. If it is found in future research that interventions are not routinely evaluated for their effectiveness, education could be provided to those agencies with regard to appropriate methodology for evaluating interventions for their effectiveness.

Training nurses in emotion labour and emotion work appears to be urgent as many nurses report that they are without training in the area of emotional expression, and have acquired skills in emotion management from other areas of their lives other than their working life. There appears to be some scope for training in emotional competence and other regulatory strategies for managing emotions in the workplace (Giardini & Frese, 2006; Heuven & Bakker, 2003; Rafaeli & Sutton, 1987). Training in healthy emotion regulation is important, given that links between particular emotion regulation strategies (e.g., surface acting) and negative health outcomes such as stress and burnout have been identified in the literature (Brotheridge & Grandey, 2002; Grandey, 2003; Gross & Munoz, 1995; Gross & Levinson, 1997; Zapf & Holz, 2006).

Communicating the importance of providing both emotional and physical care is required at this point and will not only benefit patients but also nursing staff themselves and their colleagues (Aiken *et al.*, 2001; James, 1989, 1992; Robichaud, 2003). An important and often forgotten aspect of healthcare sector employees is that they are often in need of support, particularly when they witness the emotional suffering of bearing witness to traumatic events, moral issues, and highly emotional content. Strategies to contend with occupational strain and support healthcare workers

during emotional suffering are scarce or unknown at this point. In response to occupational strain, nurses may instead develop emotion management strategies that discount, block, suppress, ignore, or dilute the intensity of experience of emotion. (Robichaud, 2003). As Robichaud (2006, p. 68.) asserts:

> '*Being expected to make light of, hide, avoid, ignore, or dampen emotion is a burden. This kind of behaviour has far reaching and sometimes devastating consequences for patients, families, healthcare professionals and their co-workers alike. Patients behave 'properly' in front of healthcare providers who behave 'properly' in front of patients. Then everyone tries to cope with the unspeakable'.*

The way employees perceive display rules appears to be paramount in relation to how they regulate their emotional responses. A review of organisational display rules and how they accommodate or compromise individual emotion management styles could be incorporated into an intervention in future research. In addition, the development of effective emotion regulation techniques within nurse training education and practice, coupled with evidence-based research could lead to more informed practice and policy (Gray & Smith, 2009).

Although many resources were considered in the third study, there are many other potential resources such as organisational justice that were omitted from the study. The issue of organisational fairness (Willi-Peltola, Kivimaki, Elovainio, & Virtanen, 2007) with regard to work schedules, access to professional development, treatment received from authority figures and (limited) remuneration and feedback received (Wilson & Huntington, 2005), were also topics discussed by both nursing staff and EAP agency professionals. The concept of organisational justice emerged among qualitative research findings, with many nurses reporting a feeling of helplessness and powerlessness as a result of unfair organisational practices. The organisational justice concept, particularly the procedural and interpersonal justice components, appears to apply to hospital nursing staff. Future research could investigate the direct and indirect links between the concept of organisational justice and health outcomes for nurses.

It would also be useful to test whether the new knowledge derived from the findings of this thesis in relation to emotion labour and emotion work performance, respectively, can be replicated among other health care or service workers. If this is the case this knowledge could be applied to other Australian human service personnel. It would also be useful to test whether these results may be applicable to international samples. Similarly, COR theory may also be used to (broadly) predict or account for findings in relation to occupational stress in Australian health care or service workers as well as workers from different nations.

It is consistently reported that women are more likely to perform emotion labour and emotion work than men, both in the work and non work lives (James, 1989, 1992, Henderson 2001). In the case of other occupational groups, further exploration of the emotion labour and emotion work constructs is desired, particularly among samples for which there are greater numbers of men.

The quest to conceptualise and test empirically the occupational stress process is unlikely to wane in the near future. Future research would therefore benefit from a wide variety of research methodologies, including an increase in longitudinal, observational and qualitative studies (Heuven & Bakker, 2003; Mays & Pope, 2006). In addition, observation or peer reports of social interactions could supplement other forms of data. The collection of observational data of social interactions involving emotion management in the form of emotion labour or emotion work performance could be used in future research in order to avoid sole reliance on retrospective reports. An increase in studies using physiological measures may also serve to settle criticisms with regard to common method variance and other limitations that pertain to cross-sectional studies and those relevant solely as self-report methodologies.

Finally, more emphasis should be placed on psychological theory when conducting occupational stress research. Applying theory to empirical research enables theory building and provides a clear mechanism for which occupational health researchers, including psychologists, can understand the process by which stress develops (Briner, 1997; Cooper, 1998).

CHAPTER NINE
RECOMMENDATIONS

9.2.1 Introduction

This chapter presents recommendations that are developed based on findings of the three studies conducted. A model of preventing psychological injury in Australia, as well as the Health and Safety Executive (HSE) management standards for occupational stress, were also consulted when formulating the recommendations (section 1.13).

9.2.2 Recommendations based on the findings of the research program

The recommendations are presented in priority order.

Recommendation 1: Stress management training

On the basis of the first and second empirical studies, **it is recommended that stress management training should be provided to all staff.** The EAP consultants had indicated that stress management training may be currently available to nursing staff. However, additional elements to the training that focus on 1) guiding managers and staff in relation to risk factors and warning signs of stress, 2) dealing with interpersonal conflict and conciliation strategies, and 3) training in emotion management could be incorporated, given that these areas were found to be the most relevant to nursing staff in this research.

Recommendation 2: Review of the importance of emotional management and expression in the workplace – the 'taught ideology of care'

Tertiary teaching institutions and staff in management positions should emphasise the importance of interactions between nursing staff and between nurses and patients. On the basis of the second empirical study findings, interacting with patients beyond a particular time limit (i.e., according to display rules and the culture of an organisation) is often frowned upon. The performance of *emotion work* was associated with fewer negative effects and with more positive psychological and social well being for hospital nurses than was *emotion labour* performance.

Performance of *emotion work* should therefore be considered to be a valuable coping strategy, to be encouraged by hospital management.

Recommendation 3: Use of psychological health services such as workplace counselling and consulting services (EAPs) and evaluation of interventions

On the basis of the third study findings and the literature review, **it is recommended that psychological health services provide both individual and organisational orientated interventions, and that organisational level interventions incorporate emotion work.** The literature review reveals that EAPs are the most routinely used resource for responding to occupational stress (Lamontagne *et al.*, 2007). However, interventions provided by EAPs are only effective if they can be tailored to a particular problem, at an appropriate level (individual versus organisational). The literature review also supports that the emotional dimension of the workplace is fundamental to antecedents and consequences of occupational well being, and consequently should be included in the design of interventions.

Similarly, interventions applied at individual, team and organisational levels should be evaluated routinely. Staff members should ether be provided with the necessary expertise to conduct this research, or should employ research personnel to conduct evaluation research.

The remaining 5 recommendations are less well grounded as they are based on qualitative data with limited validity. However, these recommendations warrant further research.

Recommendation 4: Demands of the job

On the basis of the qualitative results of the first, second and third studies, **nurse managers and higher level management should ensure that nurses are given adequate and achievable duties to be completed within designated hours of work.**

The qualitative findings reveal that due to staff shortages, nurses are consistently working long, over stretched shifts. This problem may be addressed

either by the recruitment of agency pool nurses or more nursing aides to supplement and support existing nurses, or via an alternative mechanism. However, the literature review revealed that nurse stress and job dissatisfaction may result from mixing nurses with different contractual arrangements together (e.g., mixing casual nurses and nursing aids with full time registered nurses). Existing full time registered nurses may not feel sufficiently supported by the skill level of experience of casual pool or nursing aids in the context of a particular nursing specialty.

Nurses' skills and capabilities should be commensurate with job demands (e.g., general nurses may have limited training in psychiatric nursing). Findings from studies 1 and 3 indicate that deploying nurses to cover specialty areas for which they have had no training can cause distress to individual nurses as well as to nurses who work with them. Alternatively, an increase in patient beds in specialty areas in which resources are lacking, via government or other sources of funding, should be explored.

On the basis of the qualitative findings of the first and second studies it is recommended that an adequate work schedule be developed. Although it is an inevitable aspect of nursing work, many nurses (particularly public hospital nurses) have expressed dissatisfaction with rostering arrangements. Of these, many nurses have decided to work part time or within the casual pool in order to meet rostering requirements of their workplace. It is important that difficulties with a rostering system be targeted and addressed so that inconvenient rostering does not add additional and unnecessary burden to the current pressures of nursing work.

Recommendation 5: Provision of adequate information and social support from colleagues and managers, and availability of local systems to address individual concerns

On the basis of qualitative findings from the first and second studies and on (statements made by nurses and EAP's that formed the qualitative results of the third study), **it is recommended that**:

1) **nurses are made aware of formal policies and procedures that may offer support to them;**

2) **that key resources to perform work are easily accessed, and that systems are in place (e.g., that aid in facilitating positive communication) to enable and encourage managers and employees to support their staff and colleagues; and**

3) **that employees be made aware of what external supports are available and how and when to access supports (e.g., types of supports available could be introduced via training).**

Recommendation 6: Leadership and management training

On the basis of limited data, including statements made by nurses as well as EAPs that formed the qualitative results of the third study as well as supporting previous literature, **it is recommended that leadership and management training be provided to management staff in relation to group facilitation skills as well as in relation to interpersonal skills.** Poor leadership and management practices were identified as a major source of stress for nurses, as well as for unskilled managers themselves. Appropriate training in the areas referred to above may assist with facilitating better communication between managers and staff. This may, in turn, result in greater empathy and support expressed by clinical nurse managers when responding to nurse concerns. **It is therefore recommended that management training be provided to those serving in nursing management roles, and that the training address empathy and support via interpersonal skills.**

Recommendation 7: Team building

On the basis of statements made by nurses and EAPs that formed the qualitative results of the third study, **it is recommended that organisational commitment, job satisfaction, and reduction in stress be achieved via team building strategies.** As shown in the first and second studies, social support from colleagues, supervisors and

family/friends may act to reduce negative health outcomes. Team building strategies such as regular peer support meetings and individual and group debriefing may allow nurses to feel heard and gain emotional support both individually and within nursing teams.

Recommendation 8: Participation in decision-making

On the basis of statements made by nurses and EAPs that formed the qualitative results of the third study, **it is recommended that nurses be permitted to have a greater participation in, and awareness of, decisions affecting their duties and environment.** The findings from the third study suggested that, in hospital systems in particular, there is often little transparency in higher level decision making, so that nurses on the bottom tier are often unaware of decisions made above them that could have an impact on their working lives. Employee consultation on changes may permit nurses to influence proposals. Following, HSE management standards, it is recommended that healthcare organisations, such as hospitals, engage with nursing staff frequently when undergoing organisational change, and that local systems are in place should nurses wish to voice individual concerns.

9.2.3 Conclusion

The contribution that this thesis makes to psychological research is a greater awareness of the positive impact of the recognition of emotion-based resources in the nursing profession. The findings of this research suggest that the incorporation of resources such as social support, autonomy, authentic emotional expression to nursing work, as well as the implementation of interventions specifically targeted to nurse individual and organisational issues will likely reduce negative individual and organisational level outcomes and improve positive outcomes. Based on an application of the Conservation of Resources Theory it was found that this theory provides a useful conceptual framework that can be applied to the design of baseline research or intervention research with a focus on the occupational health of health care workers.

REFERENCES

Abbott, P. & Sapsford, R. (1998). *Research Methods for Nurses and the Caring Professions*. Buckingham, UK: Open University Press.

Abraham, R. (1998). Emotional dissonance in organizations: antecedents, consequences, and moderators. *Genetic, Social, and General Psychology Monographs, 124,* 229-247.

Adamson, J. (2005). Combined qualitative and quantitative designs. In A. Bowling & S. Ebrahim (Eds.), *Handbook of health research methods* (pp. 230-245). Maidenhead, UK: Open University Press.

Adali, E. & Priami, M. (2002). Burnout among nurses in intensive care units, internal medicine wards, and emergency departments in Greek hospitals. *ICUs and Nursing Web Journal*. 11, 1-19.

Agho, A. O., Price, J. L., & Mueller, C. W. (1992). Discriminant validity of measures of job satisfaction, positive affectivity and negative affectivity. *Journal of Occupational and Organizational Psychology, 65,* 185-196.

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A. M., & Shamian, J. (2001). Nurses' reports on hospital care in five countries. *Health Affairs, 20,* 43-53.

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., & Sibler, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *The Journal of the American Medical Association, 288,* 1987-1993.

Aiken, L. H., Clarke, S. P., Cheung, R. B., Sloane, D. M., & Silber, J. H. (2003). Educational levels of hospital nurses and surgical patient mortality. *The Journal of the American Medical Association, 290,* 1617-1623.

Aiken, L.H., Smith, H. L., & Lake, E.T. (1994). Lower Medicare mortality among a set of hospitals known for good nursing care. *Medical care*, 32, 771-787.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63*, 1-18.

Andrews, D. R., & Dziegielewski, S. F. (2005). The nurse manager: Job satisfaction, the nursing shortage and retention. *Journal of Nursing Management, 13*, 286-295.

Arthur, A. R. (2000). Employee assistance programmes: the emperor's new clothes of stress management. *British Journal of Guidance and Counselling, 28*, 549-559.

Ashforth, B. E., & Lee, R. T. (1997). Burnout as a process: Commentary on Cordes, Dougherty and Blum. *Journal of Organizational Behaviour, 18*, 703-708.

Aust, B., Peter, R., & Siegrist, J. (1997). Stress management in bus drivers: A pilot study based on the model of effort–reward imbalance. *International Journal of Stress Management, 4*, 297–305.

Australian Bureau of Statistics (1997). *Labour Statistics Australia* (No. 6101.0). Canberra, ACT.

Australian Bureau of Statistics (2005). *Australian Labour Trends* (No. 4102.0). Canberra, ACT.

Australian Bureau of Statistics (2006). *Selected Health Occupations: Australia* (No. 4819.0). Canberra, ACT.

Australian Safety and Compensation Council. (2006, April). *Work-related mental disorders in Australia.* Canberra, ACT: Australian Government.

Australian Safety and Compensation Council (2007). Compendium of Workers' Compensation Statistics Australia 2004-05. Canberra, ACT: Australian Government.

Australian Safety and Compensation Council (2008). Occupational exposures of Australian nurses. Retrieved 6 November 2008, from http://www.safeworkaustralia.gov.au/swa/AboutUS/Publications/2008ResearchReports.htm

Badger, F., & Werrett, J. (2005). Room for improvement? Reporting response rates and recruitment in nursing research in the past decade. *Journal of Advanced Nursing, 51*, 504.

Baker, D. (1985). Occupational stress. *Annual Review of Public Health, 6*, 367-381.

Bakker, A. B., Demerouti, E., De Boer, E., & Schaufeli, W. B. (2003a). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior, 62*, 341-356.

Bakker, A. B., Demerouti, E., Taris, T., Schafeuli, W. B., & Schreurs, P. (2003b). A multi-group analysis of the job demands-resources model in four home care organisations. *International Journal of Stress Management, 10*, 16-38.

Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management, 43*, 83-104.

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Which job resources buffer the impact of job demands on burnout? *Journal of Occupational Health Psychology, 10*, 170-180.

Bakker, A. B., & Heuven, E. M. (2006). Emotional dissonance, burnout and in-role

performance among nurses and police officers. *International Journal of Stress Management, 13,* 423-440.

Barnett, R. C. (1998). Toward a review and re-conceptualization of the work/family literature. *Genetic, Social and General Psychology Monographs, 124,* 125-153.

Barnett, R.C. & Baruch, G.K. (1985). Women's Involvement in Multiple Roles and. Psychological Distress, *Journal of Personality and Social Psychology 49,* 135-145.

Barnett, R. C., & Marshall, N. (1988). Longitudinal study of the occupational stress and health in women licensed practical nurses and licensed social workers 1985-1988. Retrieved 12 February 2004, from http:www.radcliffe.edu/murray/data/ds/ds0763.html

Barnett, R. C., & Marshall, N. (1992). Worker and mother roles, spillover effects, and psychological distress. *Women and Health, 18,* 9-40.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1171-1182.

Baruch-Feldman, C., Brondolo, E., Ben-Dayan, D., & Schwartz, J. (2002). Sources of social support and burnout, job satisfaction and productivity. *Journal of Occupational Health Psychology, 7,* 84-93.

Bekker, M. H. J., Croon, M. A., & Bressers, B. (2005). Childcare involvement, job characteristics, gender and work attitudes as predictors of emotional exhaustion and sickness absence. *Work and Stress, 19,* 221-237.

Best, R. G., Downey, R. G., & Jones, R. G. (1997) in Brotheridge & Grandey (2002).

Incumbent perceptions of emotional work requirements. Paper presented at the 12th annual conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Bekker, M. H. J., Croon, M. A., & Bressers, B. (2005). Child care involvement, job characteristics, gender and work attitudes as predictors of emotional exhaustion and sickness absences. *Work and Stress, 19*, 221-237.

Behson, S. J. (2002). Which dominates? The relative importance of work-family organizational support and general organizational context on employee outcomes. *Journal of Vocational Behaviour, 61*, 53-72.

Bildstein, C. (2004, May 21). Patient rage is turning hospitals to fight clubs. *The Advertiser*, p. 7.

Bloomfield, J. (1999). The changing image of Australian nursing. Retrieved 5 January 2004, from www.clininfo.health.nsw.gov.au/hospolic/stvincents/stvin99/Jacqui.htm

Boles, J. S., Johnston, M. W., & Hair, J. F. (1997). Role stress, work-family conflict and emotional exhaustion: Inter-relationships and effects on some work-related consequences. *Journal of Personal Selling and Sales Management, 27*, 17-28.

Bolton, S. C. (2000). Who cares? Offering emotion work as a 'gift' in the nursing labour process. *Journal of Advanced Nursing, 32*, 580-586.

Bolton, S. C. (2001). Changing faces: Nurses as emotional jugglers. *Sociology of Health and Illness, 23*, 85-100.

Booth, K., Maguire, P. M., Butterworth, T., & Hillier, V. F. (1996). Perceived professional support and the use of blocking behaviours of hospice nurses. *Journal of Advanced Nursing, 24,* 522-527.

Bourbonnais, R., Comeau, M., & Vazina, M. (1999). Job strain and evolution of mental health among nurses. *Journal of Occupational Health Psychology, 4,* 95-107.

Borritz, M., & Kristensen, T. (1999). *Copenhagen Burnout Inventory* (1st Ed). Copenhagen, Denmark: National Institute of Occupational Health.

Borritz, M., Rugulies, R., Christensen, K. B., Villadsen, E., & Kristensen, T. S. (2006). Burnout as a predictor of self-reported sickness absence among human service workers: Prospective findings from three year follow up of the PUMA study. *Occupational and Environmental Medicine, 63,* 98-106.

Bowling, N. A., Beehr, T. A., Johnson, A. L., Semmer, N. K., Hendricks, E. A., & Webster, H. A. (2004). Explaining potential antecedents of workplace social support: Reciprocity or attractiveness? *Journal of Occupational Health Psychology, 9,* 339-350.

Breaugh, J. A. (1985). The measurement of work autonomy. *Human Relations, 38,* 551-570.

Briner, R. B. (1997). Improving stress assessment: Toward an evidence-based approach to organizational stress interventions. *Journal of Psychosomatic Research, 43,* 61-71.

Briner, R. B. (1999). The neglect and importance of emotion at work. *European Journal of Work and Organizational Psychology, 8,* 323-346.

Briner, R. B. & Reynolds, S. (1999). The costs, benefits, and limitations of organizational level stress interventions. *Journal of Organizational Behavior, 20,* 647-664.

Brotheridge, C. M., & Lee, R. T. (2002). Testing a conservation of resources model of the dynamics of emotional labour. *Journal of Occupational Health Psychology, 7*, 57-67.

Brotheridge, C. M., & Lee, R. T. (2003). Development and validation of the emotional labour scale. *Journal of Occupational and Organizational Psychology, 76*, 365-379.

Brotheridge, C. M., & Lee, R. T. (2008). The emotions of managing: An introduction to the special issue. *Journal of Managerial psychology, 23*, 108-117.

Brotheridge, C. M., & Grandey, A. A. (2002). Emotional labour and burnout: Comparing two perspectives of "people work". *Journal of Vocational Behavior, 60*, 17-39.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101.

Burke, R. J., & Greenglass, E. (2001). Hospital restructuring, work-family conflict and psychological burnout among nursing staff. *Psychology and Health, 16*, 583-594.

Caplan, R.D., Cobb, S., French, J. R. P., Van Harrison, R., & Pinneau, S.R. (1975). *Job demands and worker health.* Cincinnati, OH: National Institute for Occupational Safety and Health (Publication No. 75-168).

Carey, M. A. (1995). Comment: Concerns in the analysis of focus group data. *Qualitative Health Research, 5*, 487-495.

Carey, M. A., & Smith, M. W. (1994). Capturing the group effect in focus groups: A special concern in analysis. *Qualitative Health Research, 4*, 123-127.

Centre for suicide prevention, SIEC Alert (2000). *Stress in the workplace*. October

2000. Retrieved 10 July 2008, from http://www.suicideinfo.ca/csp/assets/alert42

Chartered Institute of Personnel and Development (2008). *Workplace mediation: How employers do it [online]*. Survey report. London: CIPD. Retrieved 6 June 2008, from http://www.cipd.co.uk/subjects/empreltns/general/_wrkplmdtn.htm

Chen, P. Y., & Spector, P. E. (1991). Negative affectivity as the underlying cause of correlations between stressors and strains. *Journal of Applied Psychology, 76*, 398-407.

Cohen, J. (1960). A coefficient agreement for nominal scales. *Educational and Psychological Measurement, 20*, 37-46.

Cohen, J. (1988).Statistical power analysis for the behavioral sciences (3rd ed.). Newark, UK: Academic Press.

Cohen, J. (1992a). The earth is round ($p < .05$). *American Psychologist, 49*(12), 997-1003.

Cohen, J. (1992b). A power primer. *Psychological Bulletin, 112*, 155-159.

Comcare (2005). Working well: An organisational approach to preventing psychological injury. Canberra, ACT: Commonwealth of Australia.

Cooper, C. L., & Cartwright, S. (1994). Healthy mind: Healthy organization – a proactive approach to occupational stress. *Human Relations, 47*, 455-471.

Cooper, C. L. (1998). *Theories of organizational stress* (pp. 28-67). New York: Oxford University Press.

Cooper, C. L., & Dewe, P. (2004). *Stress: A brief history* (1st ed.). USA: Blackwell Publishing Ltd.

Cordes, C. L., & Dougherty, T. W. (1993). A review and integration of research on job burnout. *Academy of Management Review, 18,* 621-656.

Cox, T., Griffths, A., Barlowe, C., Randall, R., Thomson, L., & Rial-Gonzalez, E. (2000). *Organisational interventions for work stress: A risk management approach.* Institute of work, health and organisations. Nottingham: United Kingdom.

Crouch, B. (2004, March 14). The trouble with nursing. *Sunday Mail,* p. 49 and p. 84.

Crouter, A. (1984). Spillover from family to work: The neglected side of the work-family interface. Human Relations, 37, 425 – 442.

Dann (1997). *Workplace bullying: Finding some answers.* South Australian Working Women's Centre. Adelaide, Australia.

Dara Ogus, E. (1990). Burnout and social support systems among ward nurses. *Issues in Mental Health Nursing, 11* 267-281.

Dawson, D., McCulloch, K., and Baker, A. (2001). *Extended Working Hours in Australia.* Report for the Department of Industrial Relations. Centre for Sleep Research, University of South Australia, Adelaide.

Deary, I. J., Blenkin, H., Agius, R., Endler, N.S., Zealley, H., & Wood. R. (1996). Models of job-related stress and personal achievement among consultant doctors. *British Journal of Psychology, 87,* 3-29.

DeCoster, J. (1998). *Overview of Factor Analysis*. Retrieved October 2 2006, from http://www.stat-help.com/notes.html

DeFrank, R. S., & Ivancevich, J. M. (1998). Stress on the job: An executive update. *Academy of Management Executive, 12,* 55-66.

de Jonge, J., & Kompier, M. A. J. (1997). A critical examination of the demand-control-support model from a work psychological perspective. *International Journal of Stress Management, 4*, 235-258.

de Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort–reward imbalance and employee well-being: A large-scale cross-sectional study. *Social Science & Medicine, 50*, 1317–1327.

de Jonge, J., & Dormann, C. (2006). Stressors, resources, and strain at work: A longitudinal test of the triple-match principle. *Journal of Applied Psychology, 91*, 1359-1374.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499-512.

Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments. *European Journal of Psychological Assessment, 19*, 12-23.

Dewe, P., & O'Driscoll, M. (2002). Stress management interventions: What do managers actually do? *Personnel Review, 31*, 143-165.

Diefendorff, J. M., & Richard, E. M. (2003). Antecedents and consequences of. emotional display rule perceptions. *Journal of Applied Psychology, 88*, 284-294.

Dillman, D.A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York, USA: Wiley.

Dollard, M. F. (1996). Work stress: Conceptualisations and implications for research methodology and workplace intervention. Unpublished doctoral dissertation, University of Adelaide, Australia.

Dollard, M. F., & Walsh, C. L. (1999). Illusory correlation: Is work stress really worse in the public sector? *The Journal of Occupational Health and Safety, 15*, 219-231.

Dollard, M. F., Winefield, H. R., & Winefield, A. H. (2003). *Occupational stress in the service professions.* Taylor & Francis, London.

Dollard, M. F. (2006, June). Throwaway workers. *InPsych, Volume 8 Issue 3,* 8-12.

Dollard, M. F., Dormann, C., Boyd, C. M., Winefield, H. R., & Winefield, A. H. (2003). Unique aspects of stress in human service work. *Australian Psychologist, 38*, 84-91.

Donnelly, J.P & Zevon, M.A. (1998). The structure of work-related stress and coping among oncology nurses in high-stress medical settings: A transactional analysis. *Journal of Occupational Health Psychology, 3*, 227-242.

Dorrian, J., Lamond, N., van den Heuvel, C., Pincombe, J., & Dawson, D. (2006). A pilot study of the safety implications of Australian nurses' sleep and work hours. *Chronobiology International, 23*, 1-15.

Dudley, W. N., Benuzillo, J. G., & Carrico, M. S. (2004). SPSS and SAS programming for the testing of mediation models. *Nursing Research 53*, 59-62.

Duffield, C. M., & Franks, H. (2002). Career paths beyond nursing and the contribution of nursing experience and skills in attaining these positions. *International Journal of Nursing Practice, 39*, 601-609.

Duffield, C. M, & O'Brien-Pallas, L. (2003). The causes and consequences of nursing shortages: A helicopter view of the research. *Australian Health Review, 26*, 186-193.

Duffield, C., Roche, M., & Merrick, E. T. (2006). Methods of measuring nursing workload in Australia. *Collegian, 13,* 16-22.

Duffield, C., Roche, M., O'Brien-Pallas, L., Diers, D., Aisbett, C., King, M., Aisbett K., & Hall, J. (2007, July). Gluing it together: Nurses, their work environment and patient safety. Retrieved 20 November 2007, from http://www.saxinstitute.org.au/researchassetsprograms/BetterHealthServicesThroughResearch/HARCeBulletin.cfm?objid=681#safety. UTS: Centre for Health Services Management.

Duffield, C., & Wise, W. (2003). Tell me what we do. Using work sampling to find the answer. *Australian Journal of Advanced Nursing, 20,* 19-23.

Duggleby, W. (2005). What about focus group interaction data? *Qualitative Health Research, 15,* 832-840.

Duquette, A., Kerouac, S., Sandhu, B.K., & Beaudet, L. (1994). Factors related to nursing burnout: A review of the empirical knowledge. *Issues in Mental Health Nursing, 15,* 337-358.

Edwards, J.R. (1998). Person-Environment Fit Theory: Conceptual foundations, empirical evidence, and directions for future research. In C.L. Cooper. *Theories of organizational stress* (pp. 122-152). New York: Oxford University Press.

Edwards, D., & Burnard, P. (2003). A systematic review of stress and stress management interventions for mental health nurses. *Journal of Advanced Nursing, 42,* 169-200.

Edwards, D., Burnard, P., Coyle, D., Fothergill, A., & Hannigan, B. (2003). A stepwise multivariate analysis of factors that contribute to stress for mental health nurses working in the community. *Journal of Advanced Nursing, 36,* 805-813.

Edwards, J. R., & Cooper, C. L. (1990). The person-environment fit approach to stress: Recurring problems and some suggested solutions. *Journal of Organizational Behavior, 10,* 293- 307.

Edwards, J. R., Caplan, R. D., & Van Harrison, R. (1998) Cybernetic theory of stress, coping, and well-being. In C.L. Cooper. *Theories of organizational stress* (pp. 28-67). New York: Oxford University Press.

Elovainio, M., Kivimaki, M., Steen, N., & Vahtera, J. (2004). Job decision latitude, organizational justice and health: Multilevel covariance structure analysis. *Social Science and Medicine, 58*, 1659-1669.

England, P., & Folbre, N. (1999). The cost of caring. *Annals of the American Academy of Political and Social Science, 561*, 39-51.

Erickson, R. J. (1993). Reconceptualising family work: The effect of emotion work on perceptions of marital quality. *Journal of Marriage and the Family, 55*, 888-900.

Erickson, R. J., & Wharton, A. S. (1997). Inauthenticity and depression: Assessing the consequences of interactive service work. *Work and Occupations, 24*, 188-214.

Escot, C., Artero, S., Gandubert, C., Boulenger, J. P., & Richie, K. (2001). Stress levels in nursing staff working in oncology. *Stress and Health, 17*, 273-279.

Farrell, G. A., & Dares, G, (1999). Nursing staff satisfaction on a mental health unit. *Australian and New Zealand Journal of Mental Health Nursing, 8,* 51-57.

Farrell, G. A., Bobrowski, C., & Bobrowski, P. (2006). Scoping workplace aggression in nursing: Findings from an Australian study. *Journal of Advanced Nursing, 55*, 778-787.

Fay, D., Sonnetag, S., & Frese, M. (1998). Stressors, innovation, and personal

initiative: Are stressors always detrimental? In C.L. Cooper. *Theories of organizational stress* (pp. 170-189). New York: Oxford University Press.

Felton, J. S. (1998). Burnout as a clinical entity its importance in health care workers. *Occupational Medicine, 48*, 237-250.

Fleiss, J (1981). Statistical Methods for Rates and Proportions (2nd ed.). Wiley: New York.

Fletcher, B.C., & Jones, F. (1993). A refutation of Karasek's demand-discretion model of occupational stress with a range of dependent measures. *Journal of Organizational Behavior, 14,* 319-330.

Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*, 647-654.

French, J. R. P., Caplan, R. D., & Harrison, R. V. (1982). *The mechanisms of job stress and strain.* London: Wiley

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues. 30*, 159-165.

Frijda, N. H. (1986). *The Emotions.* Cambridge, England: Cambridge University Press.

Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77,* 65-78.

Frone, M. R. (2000). Work-family conflict and employee psychiatric disorders: The national co-morbidity survey. *Journal of Applied Psychology, 85,* 888—895.

Froggatt, K. (1998). The place of metaphor and language in exploring nurses' emotional work. *Journal of Advanced Nursing, 28*, 332-338.

Ganster, D. C., & Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management, 17*, 235-271.

Garman, A. N., Corrigan, P. W., & Morris, S. (2002). Staff burnout and patient satisfaction: Evidence of relationships at the care unit level. *Journal of Occupational Health Psychology, 7*, 235-241.

Giardini, A., & Frese, M. (2006). Reducing the negative effects of emotion work in service occupations: Emotional competence as a psychological resource. *Journal of Occupational Health Psychology, 11*, 63-75

Goff, S. J., Mount, M. K., & Jamison, R. L. (1990). Employer supported child care, work/family conflict, and absenteeism: A field study. *Personnel Psychology, 43*, 793-809.

Goffman, E. (1959). *The Presentation of Self in Everyday Life*. New York: Doubleday.

Golembiewski, R. T., Deckard, G. J., & Rountree, B. H. (1989). The stability of burnout assignments: Measurement properties of the phase model. *Journal of Health and Human Resources Administration, 12*, 63-78.

Grandey, A. A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labour. *Journal of Occupational Health Psychology, 5*, 95-110.

Grandey, A. A. (2003). When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-related service delivery. *Academy of Management Journal, 46*, 86-96.

Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior, 54*, 350-370.

Grandey, A. A., Fisk, G. M., Mattila, A. S., Jansen, K. J., & Sideman, L. A. (2005). Is "service with a smile" enough? Authenticity of positive displays during *96,* 38-55.

Gray, B. (2009). The emotional labour of nursing: defining and managing emotions in nursing work. *Nurse Education Today, 29,* 168–175.

Gray-Toft, P., & Anderson, J. G. (1981). Stress among hospital nursing staff: Its causes and effects. *Social Science and Medicine, 15A,* 639-647.

Greenhaus, J. H., & Beutell N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10,* 76-88.

Gross, J. J. (1998). The emerging field of emotion regulation**:** An integrative review. *Review of General Psychology, Special Issue: New directions in research on emotion, 2,* 271-299.

Gross, J. J., & Munoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice, 2,* 151-164.

Gross, J. J., & Levenson, R. W. (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology, 106,* 95-103.

Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualising the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology, 5*, 111-126.

Halbesleben, J. R. B., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work and Stress, 19,* 208-220.

Hammer, T.H. & Landau, J. (1981). Methodological issues in the use of absence

data. *Journal of Applied Psychology, 66*, 574-581.

Hammer, L. B, & Thompson, C. (2003). Work-family role conflict. A sloan work and family encyclopedia entry. Retrieved 28 April 2005, from http://www.bc.edu/bc_org/avp/wfnetwork/rft/wfp/BBTent.html

Hammer, L. B., Bauer, T. N., & Grandey, A. A. (2003). Work-family conflict and work-related withdrawal behaviours. *Journal of Business and Psychology, 17*, 419-436.

Hanson, E. K. S., Godaert, G. L. R., Maas, C. J. M., & Meijman, T. F. (2001). Vagal cardiac control throughout the day: The relative importance of effort–reward imbalance and within-day measurements of mood, demand and satisfaction. *Biological Psychology, 56*, 23–44.

Hanson, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and validation of a multidimensional scale of perceived work-family positive spillover. *Journal of Occupational Health Psychology, 11*, 249-265.

Harris, P. E. (1989). The nurse stress index. *Work and Stress, 3*, 335-346.

Harrison, R.V. (1978). Person-environment fit and job stress, pp. 175-205. In C.L. Cooper & R. Payne (Eds.), *Stress at work*. New York: John Wiley & Sons.

Harvey, S., Kelloway, E. K., & Duncan-Leiper, L. (2003). Trust in management as a buffer of the relationships between overload and strain. *Journal of Occupational Health Psychology, 8*, 306-315.

Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., Spence Lashinger, H.K., North, N., & Stone, P.W. (2006). Nurse turnover: A literature review. *International Journal of Nursing Studies, 43*, 237-263.

Healy, C. M., & McKay, M. F. (2000). Nursing stress: The effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of Advanced Nursing, 31*, 681-688.

Health and Safety Executive (HSE). (2005). Tackling stress: The management standards approach: A short guide. Retrieved 6 September 2006, from www.hse.gov.uk.

Health and Safety Executive (HSE). (2007). *HSE revised guidance, Managing the causes of work-related stress: A step by step approach using the Management Standards.* Health & Safety Executive, London, Sheffield, UK: HSE Books.

Helland Hammer, T., Oystein Saksvik, P., Nytro, K., Torvatn, H., & Bayazit, M. (2004). Expanding the psychosocial work environment: Workplace norms and work-family conflict as correlates of stress and health. *Journal of Occupational Health Psychology, 9*, 83-97.

Henderson, A. (2001). Emotional labour and nursing: An underappreciated aspect of caring work. *Nursing Inquiry, 8*, 130-138.

Hellgren, J., Näswall, K., Sverke, M., & Söderfeldt, M. (Red.) (2003). *New organizational challenges for human service work.* Munich: Rainer Hampp

Heuven, E., & Bakker, A. B. (2003). Emotional dissonance and burnout among cabin attendants. *European Journal of Work and Organizational Psychology, 12*, 81-100.

Hillhouse, J. J., & Adler, C. M. (1997). Investigating stress effect patterns in hospital staff nurses: Results of a cluster analysis. *Social Science and Medicine, 12*, 1781-1788.

Himmelweit, S. (1999). Emotional labour in the service economy: The contours of emotional labour: Caring labour. *Annals of the American Academy of Political and Social Science, 561*, 27-38.

Hobfoll, S. E. (1998). Stress, culture and community (1st ed.). New York, Plenum Press.

Hobfoll, S. E. (1989). Conservation of Resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513-524.

Hobfoll, S. E. (2001a). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review, 50*, 337-421.

Hobfoll, S. E. (2001b). Conservation of resources: A rejoinder to the commentaries. *Applied Psychology: An International Review, 50*, 419-421.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6*, 307-324.

Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. *The American Journal of Sociology, 85*, 551-575.

Hochschild, A. R. (1983). *The managed heart.* Berkeley, USA: University of California Press.

Houkes, I., & Janssen, P. P. M. (1999). A test of Leiter's process model of burnout. *Journal of Health and Human Services Administration, 21*, 533-559.

Houkes, I., Janssen, P. P. M., de Jonge, J., & Bakker, A. (2003). Personality, work characteristics, and employee well-being: A longitudinal analysis of additive and moderating effects. *Journal of Occupational Psychology, 8*, 20-38.

House, J. S., Robbins, C., & Metzner, H. L. (1982). The association of social relationship and activities with mortality: prospective evidence from the Tecumseh Community Health Study. *American Journal of Epidemiology, 116*, 123-140.

Hu, L. & Bentler, P. M. (1998). Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3,* 424-453.

Irie, M., Tsutsumi, A., & Kobayashi, F. (2002). Effort–reward imbalance and comprehensive health in Japanese workers. *Journal of UOEH, 24(Supplement 2),* 138–143.

Irvine, D. M., & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research, 44,* 246-253.

James, N. (1989). Emotional labour: Skill and work in the social regulation of feelings. *The Sociological Review, 37,* 15-42.

James, N. (1992). Care=organisation + physical labour + emotional labour. *Sociology of Health and Illness, 14,* 488-509.

James, C. (2004 January 17). Break down: Nurses blame stress. *The Advertiser,* pp. 1-2.

Janssen, P. P. M, De Jonge, J., & Bakker, A. B. (1999). Specific determinants of intrinsic work motivation, burnout and turnover intentions: A study among nurses. *Journal of Advanced Nursing, 29,* 1360-1369.

Jansen, N., Kant, I., Kristensen, T. S., & Nijhuis. F. J. N. (2003). Antecedents and consequences of work-family conflict: A prospective cohort study. *Journal of Occupational and Environmental Medicine, 45,* 479-491.

Janssen, P. P. M., Peeters, M. C. W., de Jonge, J., Houkes, I., & Tummers, G.E.R. (2004). Specific relationships between job demands, job resources and psychological outcomes and the mediating role of negative work-home interference. *Journal of Vocational Behavior, 65,* 411-429.

Jex, S. M., Beehr, T. A., & Roberts, C. K. (1992). The meaning of occupational stress items to survey respondents. *Journal of Applied Psychology, 77*, 623-628.

Jinks, A. M., & Hope, P. (2000). What do nurses do? An observational study of the activities of nurses on acute surgical and rehabilitation wards. *Journal of Nursing Management, 8*, 273-279.

Johnson, H. A. M., & Spector, P. E. (2007). Service with a smile: Do emotional intelligence, gender, and autonomy moderate the emotional labour process? *Journal of Occupational Health Psychology, 12*, 319-333.

Johnson, J., Hall, E.M., Ford, D.E., Mead, L.A., Levine, D.M., Wang, N.Y., & Klag, M.J. (1995). The psychosocial work environment of physicians. *Journal of Occupational and Environmental Medicine, 37*, 1151-1159.

Jones, A. (1999). 'A heavy and blessed experience': A psycho-analytic study of community Macmillan nurses and their roles in serious illness and palliative care. *Journal of Advanced Nursing, 30*, 1297-1303.

Jones, J. R. (2000). Taking one for the team: Organizational commitment as a moderator of emotional labour stress effects. Retrieved 4 September 2005, from http://www.sba.muohio.edu/jonesjr.

Jones, F., & Bright, J. (2001). *Stress. Myth, Theory and Research*. Pearson Education Limited. United Kingdom.

Jones, M. C., & Johnston, D. W. (2000). Reducing distress in first level and student nurses: a review of the applied stress management literature. *Journal of Advanced Nursing, 32*, 66-74.

Judge, T. A., Erez, A., & Thoresen, C. J. (2000). Why negative affectivity (and self-deception) should be included in job stress research: Bathing the baby with the bath water. *Journal of Organizational Behavior, 21*, 101-111.

Kahn, R. L. & Byosiere, P. H. R. (1992) Stress in Organizations, in M.D. Dunette and L.M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed). *Volume 3*, pp 571-650. Palo Atlo: Consulting Psychologists Press.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational Stress: Studies in Role Conflict and Ambiguity*. Wiley, New York.

Kandel, D. B., Davies, M., & Raveis, V. H. (1985). The stressfulness of daily social roles for women: Marital, occupational and household roles. *Journal of Health and Social Behavior, 26*, 64-78.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly, 24*, 285-304.

Karasek, R. A. (1989). Control in the workplace and its health-related aspects. In: Sauter, S. L., Hurrel, J. J. Jr., & Cooper, C. L. (Eds). *Job control and worker's health*. Wiley: New York, pp. 129-161.

Karasek, R & Theorell, T (1990). *Healthy Work, Stress, Productivity and the Reconstruction of Healthy Life.* Basic Books: New York.

Karmel, T., & Li, J. (2002). The nursing workforce 2010. *National Review of Nursing Education 2002: The Nursing Workforce*, Canberra, Australia.

Kaufmann, G. M., & Beehr, T. A. (1986). Interactions between job stressors and social support: Some counterintuitive results. *Journal of Applied Psychology, 71*, 522-526.

Kenny, D. A. (1998) Structural equation modeling: Multiple factor models. Retrieved 3 May 2005, from http://users.rcn.com/dakenny/mfactor.htm

Kinman, G., & Jones, F. (2005). Lay representations of workplace stress: What do people really mean when they say they are stressed? *Work and Stress, 19,* 101-120.

Kilfedder, C. J., Power, K. G., & Wells, T. J. (2001). Burnout in psychiatric nursing. *Journal of Advanced Nursing, 34,* 383-396.

Kirchmeyer, C. (1992). Perceptions of nonwork-to-work spillover: Challenging the common view of conflict-ridden domain relationships. *Basic and Applied Social Psychology, 13,* 231-249.

Kitaoka-Higashiguchi, K. (2005). Burnout as a developmental process among Japanese nurses. Investigation of Leiter's model. *Japan Journal of Nursing Science, 2,* 9-16.

Kivima¨ ki, M., Leino-Arjas, P., Luukkonen, R., Riihimaki, H., Vahtera, J., & Kirjonen, J. (2002). Work stress and risk of cardiovascular mortality: Prospective cohort study of industrial employees. *British Medical Journal, 325,* 857–860.

Kline, R. B. (2005). *Principles and practice of structural equation modelling* (2nd ed.). New York, USA: The Guilford Press.

Klockars, A.J., & Sax, G. (1986). *Multiple Comparisons*. Sage University series on Quantitative Applications in the Social Sciences, 07-061. Beverly Hills, USA: Sage Publications.

Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family, and inter-role conflict: A construct validation study. *Organizational Behavior, 32,* 198-215.

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work and Stress, 19,* 192-207.

Kruml, S. M., & Geddes, D. (2000). Exploring the dimensions of emotional labour. *Management Communication Quarterly, 14,* 8-49.

Kulka, R.A (1976). Person-environment fit in the high school: A validation study. *Dissertation Abstracts International,* 36, 5352B

Kuper, H., Singh-Manoux, A., Siegrist, J., & Marmot, M. (2002). When reciprocity fails: Effort–reward imbalance in relation to coronary heart disease and health functioning within the Whitehall II study. *Occupational and Environmental Medicine, 59,* 777–784.

Lambert, S. J. (1990). Processes linking work and family: A critical review and research agenda. *Human Relations, 43,* 239-257.

Lambert, E. G., Hogan, N., & Barton, S. M. (2001). The impact of job satisfaction on turnover intent: A test of a structural measurement model using a national sample of workers. *The Social Science Journal, 38,* 233-250.

Lambert, V. A., Lambert, C. E., & Yamase, H. (2003). Psychological hardiness, workplace stress and related stress reduction strategies. *Nursing and Health Sciences, 5,* 181-184.

Lamontagne, A.D., Keegel, T., Louie, A.M., Ostry, A., & Landsbergis, P.A. (2007). A systematic review of the job-stress intervention evaluation literature, 1990-2005. *International Journal of Occupational and Environmental Health, 13,* 268-280.

Laschinger, H. K. S., Shamian, J., & Thomson, D. (2001). Impact of magnet hospital characteristics on nurses' perceptions of trust, burnout, quality of care, and work satisfaction. *Nursing Economics, 19,* 209-220.

Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill

Lazarus, R. S. (1990). Theory based stress management. *Psychological Inquiry, 1*, 3-12.

Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology, 44*, 1-21.

Lazarus, R. S. (1999). Stress and emotion: A new synthesis. London: Free Association Books.

Lazarus, R. S. (2000). Toward better research on stress and coping. *American Psychologist, 55*, 665-673.

Lazarus, R. S. (2001). Conservation of resources theory (COR): Little more than words masquerading as a new theory. *Applied Psychology: An International Review,* 50, 381-391.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.

Le Blanc, P. M., & Schaufeli, W. B. (2003). Burnout among oncology care providers: Radiation assistants, physicians and nurses. In M.F. Dollard, A.H. Winefield, & H.R. Winefield (Eds.), *Occupational Stress in the Service Professions* (pp. 143-165). Taylor and Francis, London.

Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81*, 123-133.

Lee, V., & Henderson, M.C. (1996). Occupational stress and organizational commitment in nurse administrators. *The Journal of Nursing Administration 26,* 21–28.

Leiter, M. P. (1993). Burnout as a developmental process: Consideration of models.

In: Schaufeli, W. B., Maslach, C. and Marek, T. (Eds) Professional Burnout: Recent Developments in Theory and Research (pp. 237-250). Taylor & Francis: Washington, DC.

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior, 9*, 297-308.

Lewig, K. A., & Dollard, M. F. (2001). Social construction of work stress: Australian newsprint media portrayal of stress at work, 1997-98. *Work and Stress, 15*, 179-190.

Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance, 4*, 309-336.

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales.* (2nd ed.). Syndey, New South Wales: The Psychology Foundation of Australia, Inc.

Mackinnon, D. P. (1994). Analysis of mediating variables in prevention and intervention research. *NIDA Research Monograph, 139*, 127-153.

Mackinnon, D. P., & Dwyer, J. H. (1993). Estimating mediated effects in prevention studies. *Evaluation Review, 17*, 144-158.

MacKinnon, D. P., Warsi, G., & Dwyer, J. H. (1995). A simulation study of mediated effect measures. *Multivariate Behavioral Research, 30*, 41-62.

MacKinnon, D. P., Lockwood, C. M., Hoofman, J. M., West, S.G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*, 83-104.

Madill, A., Jordan, A., & Shirley, C. (2000). Objectivity and reliability in qualitative analysis: Realist, contextualist and radical constructionist epistemologies. *British Journal of Psychology, 91*, 1-20.

Mann, S. (1999). Emotion at Work: To what extent are we expressing, suppressing, or faking it? *European Journal of work and organizational psychology, 8*, 347-369.

Mann, S. (2005). A health-care model of emotional labour: An evaluation of the literature and development of a model. *Journal of Health Organizational and Management, 19*, 304-317.

Mann. S., & Cowburn, J. (2005). Emotional labour and stress within mental health nursing. *Journal of Psychiatric and Mental Health Nursing, 12*, 154-162.

Maslach, C. (1976). Burned-out. *Human Behavior, 5*, 16-22.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour, 2*, 99-113.

Maslach, C. (1992). *Burnout, the cost of caring.* Prentice-Hall, New Jersey.

Maslach, C. (1998) A multidimensional theory of burnout. In C.L. Cooper. *Theories of organizational stress* (pp. 68-85). New York: Oxford University Press.

Mayhew, C., & Chappell, D. (2003a). "Internal" occupational violence (or bullying) in the health care industry. *Journal of Occupational Health and Safety – Australia and New Zealand, 19*, 59-71.

Mayhew, C., & Chappell, D. (2003b). High-risk settings for occupational violence. *Journal of Occupational Health and Safety – Australia and New Zealand, 19*, 25-34.

Mayhew, C., & Chappell, D. (2003c). Reporting of occupational violence. *Journal of*

Occupational Health and Safety – Australia and New Zealand, 19, 25-34.

Mays, N., & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research. *British Medical Journal, 320*, 50-52.

McVicar, A. (2003). Workplace stress in nursing: a literature review. *Journal of Advanced Nursing, 44*, 633-642.

Medibank Private Limited (August 2008). The cost of workplace stress in Australia. Retrieved 14 September 2008, from http://www.medibank.com.au/Client/Documents/Pdfs/The-Cost-of-Workplace-Stress.pdf

Melchoir, M. E. W., Bours, G. .J .J. W., Schmitz, P., & Wittich, Y. (1997). Burnout in psychiatric nursing: A meta-analysis of related variables. *Journal of Psychiatric and Mental Health Nursing, 4*, 193-201.

Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Convergence between measures of work-to-family and family-to-work conflict: A meta-analytic examination. *Journal of Vocational Behaviour, 67*, 215-232

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*, 538-551.

Montgomery, A. J., Peeters, M. C. W., Schaufeli, W. B., & Den Ouden, M. (2003). Work-home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress and Coping, 16*, 195-211.

Moore, K. A., & Mellor, D. J. (2003). The role of management consultation, support, and coping on nurses' health during the stress of restructuring. *International Journal of Public Administration, 26*, 1621-1636.

Morris, J. A., & Feldman, D. C. (1996). The dimensions, antecedents, and

consequences of emotional labour. *Academy of Management Review, 21*, 986-1010.

Mossholder, K. W., Bedeian, A. G., & Armenakis, A. A. (1981). Group process-work outcome relationships: A note on the moderating impact of self-esteem. *Academy of Management Journal, 25*, 575-585.

National Institute for Occupational Safety and Health (NIOSH) (2008). *Stress at Work.* Retrieved 10 July 2008, from http://www.cdc.gov/niosh/topics/stress/

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*, 400-410.

Newman, J. E., & Beehr, T. A. (1979). Personal and organizational strategies for handling job stress: A review of research and opinion. *Personnel Psychology, 32*, 1-43.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York, USA: McGraw-Hill.

O-Brien-Pallas, L., Duffield, C, & Hayes, L. (2006). Do we really understand how to retain nurses? *Journal of Nursing Management, 14*, 262-270.

Office of the Australian Safety and Compensation Council. (2006). Compendium of workers' compensation statistics, Australia, 2002-2003, Canberra: Commonwealth of Australia (Department of Employment and Workplace Relations).

Parasuraman, S. (1989) Nursing turnover: An integrated model. *Research in Nursing and Health, 12*, 267–277.

Parkes, K. R. (1980). Coping, negative affectivity, and the role of the work

environment: Additive and interactive predictors of mental health, *Journal of Applied Psychology, 75*, 399–409.

Parkes, K. R., Mendham, C. A., & Von Rabenau, C. (1994). Social support and the demand-discretion model of job stress: Tests of additive and interactive effects in two samples. *Journal of Vocational Behavior, 44*, 91-113.

Parle, G. (2003). The dynamics if nursing attraction, retention and turnover. Best Practice Australia Pty Ltd. Retrieved 29 September 2005, from http://www.archi.net.au/content/index.phtml/itemId

Patton, M. Q. (2002). *Qualitative evaluation and research methods.* Sage Publications: California, USA.

Patrick, K., & Lavery, J. F. (2007). Burnout in nursing. *Australian Journal of Advanced Nursing, 24*, 43-48.

Payne R.L. (1988). A longitudinal study of the psychological well being of unemployed men and the mediating effect of neuroticism. *Human Relations, 41*, 119-138.

Payne R.L. (2000) Comments on why negative affectivity should not be controlled in job stress research: Don't throw out the baby with the bath water. *Journal of Organizational Behavior, 21*, 97-99.

Pearson, A., Porritt, K. A., Doran, D., Vincent, L., Craig, D., Tucker, D., Long, L., & Henstridge, V. (2006). A comprehensive systematic review of evidence on the structure, process, characteristics and composition of a nursing team that fosters a healthy work environment. *International Journal of Evidence-Based Healthcare, 4*(2), 118-159.

Peeters, M. C. W., de Jonge, J., Janssen, P. P. M., & van der Linden, S. (2004). Work-home interference, job stressors and employee health in a longitudinal perspective. *International Journal of Stress Management, 11*, 305-322.

Pelletier, D.S., Donoghue, J.M., & Duffield, C. M. (2005) Understanding the nursing workforce: A longitudinal study of Australian nurses six years after graduate study concludes with a snapshot, *Australian Journal of Advanced Nursing, 23,* 37-43.

Peter, R., Alfredsson, L., Knutsson, A., Siegrist, J., & Westerholm, P. (1999). Does a stressful psychosocial work environment mediate the effects of shift work on cardiovascular risk factors? *Scandinavian Journal of Work, Environment & Health, 25,* 376–381.

Peters, C. L. O., & Enders, C. (2002). A primer for the estimation of structural equation models in the presence of missing data: Maximum likelihood algorithms. *Journal of Targeting, Measurement and Analysis for Marketing, 11,* 81-95.

Peterson, C. (2003). Stress among health care workers. *Journal of Occupational Health and Safety – Australia and New Zealand, 19,* 49-58.

Petterson, I-L., Hertting, A., Hagberg, L., & Theorell, T. (2005). Are trends in work and health conditions interrelated? A study of Swedish hospital employees in the 1990s. *Journal of Occupational Health Psychology, 10,* 110-120.

Philips, S. (1996). Labouring the emotions: Expanding the remit of nursing work? Journal of Advanced Nursing, 24, 139-143.

Pines, A., & Aronson, E. (1981). *Burnout from Tedium to Personal Growth*. New York: Free Press.

Pocock, B. (2001). *Having a life: Work, family fairness and community in 2000.* Centre for labour research, Adelaide University.

Pocock, B. (2003). *Work-life collision: What work is doing to Australians and what to do about it.* Annandale, NSW: Federation Press.

Pope, C., & Mays, N. (2006). Qualitative research in health care (3rd ed.). Carlton, Victoria: Blackwell Publishing.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*, 717-731.

Rafaeli, A. (1989). When clerks meet customers: A test of variables related to emotional expressions on the job. *Journal of Applied Psychology, 74*, 385-393.

Rafaeli, A., & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review, 12*, 23-37.

Randle, J. (2003). Bullying in the nursing profession. *Journal of Advanced Nursing, 43*, 395-401.

Richardsen, A. M., & Burke, R. J. (1995). Models of burnout: Implications for interventions. *International Journal of Stress Management, 2*, 31-43.

Riggo, R.E., & Reichard, R.E. (2008). The emotional and social intelligences of effective leadership. An emotional and social skill approach. *Journal of Managerial psychology, 23*, 169.185.

Robichaud, A. L. (2003). Healing and feeling: The clinical ontology of emotion. *Bioethics, 17*, 59-68.

Rossi, P. H., & Freeman, H. E. (1993). *Evaluation: A systematic approach* (5th ed.). Newbury Park, CA: Sage Publications, Inc.

Sandy, A. (2005 August 7). It's like a Nazi camp: RAH nurses' ward outcry. *Sunday Mail*, p. 25.

Schaubroeck, J., & Jones, J. R. (2000). Antecedents of workplace emotional labour

dimensions and moderators of their effects on physical symptoms. *Journal of Organizational Behavior, 21*, 163-183.

Schaufeli, W.B. and Enzmann, D. (1998) *The burnout companion to study and practice: A critical analysis.* London: Taylor and Francis.

Schaufeli, W. B., & Taris, T. W. (2005). The conceptualisation and measurement of burnout: Common ground and worlds apart. *Work and Stress, 19,* 256-262.

Schermelleh-Engel, K., Moosbrugger, H., & Muller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online, 8,* 23-74.

Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W. (2000). The factorial validity of the Maslach Burnout Inventory - General Survey (MBI-GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology, 73,* 53-66.

Schwarzer, R. (2001a). Stress, resources, and proactive coping. *Applied Psychology: An International Review, 50,* 400-408.

Schwarzer, R. (2001b). *Anxiety.* Retrieved 6 January 2008, from http://www.macses.ucsf.edu/Research/Psychosocial/notebook/anxiety.html on 6 January 2008. Research network on socioeconomic status and health.

Shirom, A. (2005). Reflections on the study of burnout. *Work and Stress, 19,* 263-270.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods, 7,* 422-445.

Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review, 39,* 567-578.

Siegrist, J. (1996). Adverse health effects of high effort – low reward conditions at work. *Journal of Occupational Health Psychology, 1*, 27–43.

Siegrist, J. (1998). Adverse health effects of effort-reward imbalance at work: Theory, empirical support, and implications for prevention. In C.L. Cooper. *Theories of organizational stress* (pp. 190-204). New York: Oxford University Press.

Siegrist, J. (2001). A theory of occupational stress. In J. Dunham (Ed.), *Stress in the workplace: Past, present and future* (pp. 52–66). London: Whurr Publishers, Ltd.

Skilbeck, J., & Payne, S. (2003). Emotional support and the role of clinical nurse specialists in palliative care. *Journal of Advanced Nursing, 43*, 521-530.

Smith, P. (1991). The nursing process: Raising the profile of emotional care in nurse training. *Journal of Advanced Nursing, 16*, 74-81.

Smith, P., Barnes, S., & Jennings, P. (1998). The secret ingredient. *The Nursing Times 94*, 32.

Smith, P., & Lorentzon, M. (2005). Is emotional labour ethical? *Nursing Ethics, 12*, 638-642.

Sobel, M. E. (1990). Effect analysis and causation in linear structural equation models. *Psychometrika, 55*, 495-515.

Sparks, K., Cooper, C., Fried, Y., & Shirom, A. (1997). The effects of hours of work on health: A meta-analytic review. *Journal of Occupational and Organizational Psychology, 70*, 391-408.

Spector, P.E., & Jex, S.M. (1991). Relations of job characteristics from multiple data sources with employee affect, absence, turnover intentions, and health. *Journal of Applied Psychology, 76*, 46-53.

Spector, P. E., Zapf, D., Chen, P. Y., & Frese, M. (2000). Why negative affectivity should not be controlled in job stress research: Don't throw out the baby with the bath water. *Journal of Organizational Behavior, 21,* 79-95.

Speilberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory STAI (Form Y).* Palo Alto, CA: Consulting Psychologists Press.

Speilberger, C. D. (1985). Assessment of state and trait anxiety: Conceptual and methodological issues. *The Southern Psychologist, 2,* 6-16.

Staden, H. (1998). Alertness to the needs of others: A study of the emotional labour of caring. *Journal of Advanced Nursing, 27,* 147-156.

STATS (2004). *Counting the costs of stress*. Retrieved 20 July 2008, from http://stats.org/stories/2004/counting_costs_stress_sep23_04.htm

Strauss A. (1987). *Qualitative Analysis for Social Scientists*. Cambridge, UK: University Press.

Strazdins, L. M (2000). Integrating emotions: Multiple role measurement of emotional work. *Australian Journal of Psychology, 52,* 41-50.

Strazdins, L. M., D'Souza, R. M., Lim, L. L.-Y., Broom, D. H., & Rodgers. B. (2004). Job strain, job insecurity, and health: Rethinking the relationship. *Journal of Occupational Health Psychology, 9,* 296-305.

Steinberg, R. J., & Figart, D. M. (1999). Emotional labor in the service economy: Emotional labor since The Managed Heart. *The Annals of the American Academy of Political and Social Science,* 561 Annals 8.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, USA: Allyn and Bacon.

Taris, T. W., Peeters, M. C. W., Le Blanc, P. M., Schaufeli, W. B., & Schreurs, P. J. G. (2001). From inequity to burnout: The role of job stress. *Journal of Occupational Health Psychology, 6,* 303-323.

Taris, T. W., LeBlanc, P. M., Schaufeli, W. B., & Schreurs, P. J. G. (2005). Are there casual relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work and Stress, 19,* 238-255.

Taunton, R. L., Boyle, D. K., Woods, C. Q., Hansen, H. E., & Bott, M. J. (1997). Manager leadership and retention of hospital staff nurses. *Western Journal of Nursing Research, 19,* 205-226.

The Australia Institute (2004). *Take the rest of the day off.* Retrieved 29 June 2006, from http://www.tai.org.au/WhatsNew_Files/WhatsNew/Overwork%20day%2020th%20November.pdf

Theorell, T. (1998) Job characteristics in a theoretical and practical health context. In C.L. Cooper. *Theories of organizational stress* (pp. 205-219). New York: Oxford University Press.

Theorell, T., & Hasselhorn, H. M. (2005). On cross-sectional questionnaire studies of relationships between psychosocial conditions at work and health – are they reliable? International Archive of Occupational Environmental Health, 78, *517-522.*

Thomas, S. P. (2003). 'Horizontal hostility': Nurses against themselves: How to resolve this threat to retention. *American Journal of Nursing, 103,* 87-91.

Thomsen, S., Soares, J., Nolan, P., Dallander, J., & Arnetz, B. (1999). Feelings of professional fulfilment and exhaustion in mental health personnel: The importance of organizational and individual factors. *Psychotherapy and Psychosomatics, 68,* 157-164.

Thompson, M. S., & Cooper, C. L. (2001). A rose by any other name: A commentary on Hobfoll's conservation of resources theory. *Applied Psychology: An International Review, 50*, 408-418.

Tilley, S., & Chambers, M. (2003). A systematic review of the effectiveness of stress-management interventions for mental health professionals. *Journal of Psychiatric and Mental Health Nursing, 10*, 370-371.

Toohey, J. (1995). Managing the stress phenomenon at work. In P. Cotton (Ed.), *Psychological Health in the Workplace: Understanding and Managing Occupational Stress* (pp. 51-72). Brisbane: The Australian Psychological Society

Tyler, P. A. & Cushway, D. (1995) Stress in nurses: The effects of social support, coping and job satisfaction. Stress Medicine, 11, 243-251.

Tyler, P. A., & Ellison, R.N. (1994). Sources of stress and psychological well-being in high-dependency nursing. *Journal of Advanced Nursing, 19*, 469-476.

Tolich, M. B. (1993). Alienating and liberating emotions at work: Supermarket clerks' performance of customer service. *Journal of Contemporary Ethnography, 21*, 361-381.

Tschan, F., Rochat, S., & Zapf, D. (2005). It's not only clients: Studying emotion work with clients and co-workers with an event-sampling approach. *Journal of Occupational and Organizational Psychological, 78*, 195-220.

Tsutsami, A., & Kawakami, N. (2004). A review of empirical studies on the model of effort–reward imbalance at work: Reducing occupational stress by implementing a new theory. *Social Science & Medicine 59*, 2335–2359.

Tucker, A. L., & Spear, S. J. (2006). Operational failures and interruptions in hospital nursing. *Health Services Research, 41*, 643-662.

Tyler, P. A., & Ellison, R. N. (1994). Sources of stress and psychological well-being in high-dependency nursing. *Journal of Advanced Nursing, 19*, 469-476.

Tyler, P., & Cushway, D. (1992). Stress, coping and mental well-being in hospital nurses. *Stress Medicine, 8*, 91-98.

Tyler, P., & Cushway, D. (1995). Stress in nurses: The effects of coping and social support. *Stress Medicine, 11*, 243-251.

Ullrich, A., & FitzGerald, P. (1990). Stress experienced by physicians and nurses in the cancer ward. *Social Science and Medicine, 31*, 1013-1022.

van Der Doef, M., & Maes, S. (1999). The job demand-control)-support) model and psychological well-being: A review of 20 years of empirical research. *Work and Stress, 13*, 87-114.

van Vegchel, N., de Jonge, J., Bosna, H., & Schaufeli, W. (2005). Reviewing the effort–reward imbalance model: Drawing up the balance of 45 empirical studies. *Social Science & Medicine, 60*, 1117–1131.

van Vegchel, N., de Jonge, J., Meijer, T., & Hamers, J. P. H. (2001). Different effort constructs and effort–reward imbalance: Effects on employee well-being in ancillary health care workers. *Journal of Advanced Nursing, 34*, 128–136.

Victorian Health Promotion Foundation (2006). *Workplace Stress in Victoria: Developing a Systems Approach.* Retrieved 17 March 2008, from http://www.vichealth.vic.gov.au/workplacestress.

Vrijkotte, T. G. M., van Doornen, L. J. P., & de Geus, E. J. C. (2000). Effects of work stress on ambulatory blood pressure, heart rate, and heart rate variability. *Hypertension, 35*, 880–886.

Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood. *Journal of Social and Personal Relationships, 17*, 5-30.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52*, 129-148.

Watson, D., Clark, L. A., & Tellgen, A. (1988). Development and validation pf brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.

Weiss, T. (2008). Recession-Proof Jobs. Retrieved 16 November 2008, from www.forbes.com

Wharton, A. S., & Erickson, R. J. (1993). Managing emotions on the job and at home: Understanding the consequences of multiple emotional roles. *Academy of Management Review, 18*, 457-486

White, A. (1996). A theoretical framework created from a repertory grid analysis of graduate nurses in relation to the feelings they experience in clinical practice. *Journal of Advanced Nursing, 24*, 144-150.

Wickett, D., McCutcheon, H., & Long, L. (2003). Commentary: an Australian perspective. *Journal of Advanced Nursing, 43*, 343-345.

Wilkinson, S. (1998). Focus groups in health research. *Journal of Health Psychology, 3*, 329-348.

Willi-Peltola, E., Kivimaki, M., Elovainio, M., & Virtanen, M. (2007). Organisational justice and employee perceptions on hospital management. *Journal of Health Organization and Management, 21*, 320-332.

Wilson, H., & Huntington, A. (2005). OHS in the nursing workplace: accountability and the management of stress. *Journal of Occupational Health and Safety, 21*, 113-120.

Winefield, H. R., Winefield, A. H., & Tiggemann, M. (1992). Social support and psychological well-being in young adults: The multi-dimensional support Scale. *Journal of Personality Assessment, 58*, 198-210.

Winefield, H., Dollard, M., & Winefield, A. (2000). The role of supervisors in managing occupational stress for service professionals. *Journal of Occupational Health and Safety, 16*, 343-349.

Winwood, P. C., & Winefield, A. H. (2004). Comparing two measures of burnout among dentists in Australia. *International Journal of Stress Management, 11*, 282-289.

Woodward, C. A., Shannon, H. S., Cunningham, C., McIntosh, J., Lendrum, B., Rosenbloom & Brown, J. (1999). The impact of re-engineering and other cost reduction strategies on the staff of a large teaching hospital: A longitudinal study. *Medical Care, 37*, 556-569.

Workcover Corporation SA. *Annual Statistical Review1998-1999.*
Workcover Corporation SA. *Annual Statistical Review1999-2000.*
Workcover Corporation SA. *Annual Statistical Review2000-2001.*
Workcover Corporation SA. *Annual Statistical Review2001-2002.*
Workcover Corporation SA. *Annual Statistical Review2002-2003.*
Workcover Corporation SA. *Annual Statistical Review2003-2004.*
Workcover Corporation SA. *Annual Statistical Review2004-2005.*
Workcover Corporation SA. *Annual Statistical Review2005-2006.*
Workcover Corporation SA. *Annual Statistical Review2006-2007.*

World Health Organisation (1998). *Depression.* Retrieved 6 January 2008,

from http://www.who.int/mental_health/management/depression/definition/en/index.html

Wright, T. A. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology, 5*, 84-94.

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of performance and voluntary turnover. *Journal of Applied Psychology, 83*, 486-493.

Xanthopoulou, D., Bakker, A. B., Dollard, M.F., Demerouti, E., Schaufeli, W. B., Taris, T. W., & Schreurs, P. J. G. (2007). When do job demands particularly predict burnout? The moderating role of job resources. *Journal of Managerial Psychology, 22*, 766-786.

Zammuner, V. L., Lotto, L., & Galli, C. (2003). Regulation of emotions in the helping professions: Nature, antecedents and consequences. *Australian e-Journal for the Advancement of Mental Health (AeJAMH), 2*, 1-13.

Zapf, D. (2002). Emotion work and psychological well-being. A review of the literature and some conceptual considerations. *Human Resource Management Review, 12*, 237-268.

Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology, 1*, 145-169.

Zapf, D., & Holz, M. (2006). On the positive and negative effects of emotion work in organizations. *European Journal of Work and Organizational Psychology, 15*, 1-28.

Zapf, D., Seifert, C., Schmutte, B., Mertini, H., & Holz, M. (2001). Emotion work and

job stressors and their effects on burnout. *Psychology and Health*, *16*, 527-545.

Zapf, D., Vogt, C., Seifert, C., Mertini, H., & Isic, A. (1999). Emotion work as a source of stress: The concept and development of an instrument. *European Journal of Work and Organizational Psychology, 8*, 371-400.

APPENDICES

APPENDIX 1.1

Number of mental stress claims, costs due to claims, and days lost between 1988 and 2004 at a large South Australian public hospital

In consideration of great costs or days lost (due to psychological strain) to a large South Australian public hospital from 1998-2004 (out of a total of about 4,500 staff, of which 14,000 were nurses), study 1 was conducted using nurses from this public hospital.

Reports of psychological injury from the large South Australian public hospital

Data collated by the Occupational Health and Safety Department of the large public hospital sampled depicted days lost annually, number of psychological injury records, and costs between the years 1988 and 2003. It is clear from Figure 1 that annual days lost due to these claims increased from 1988-2004.

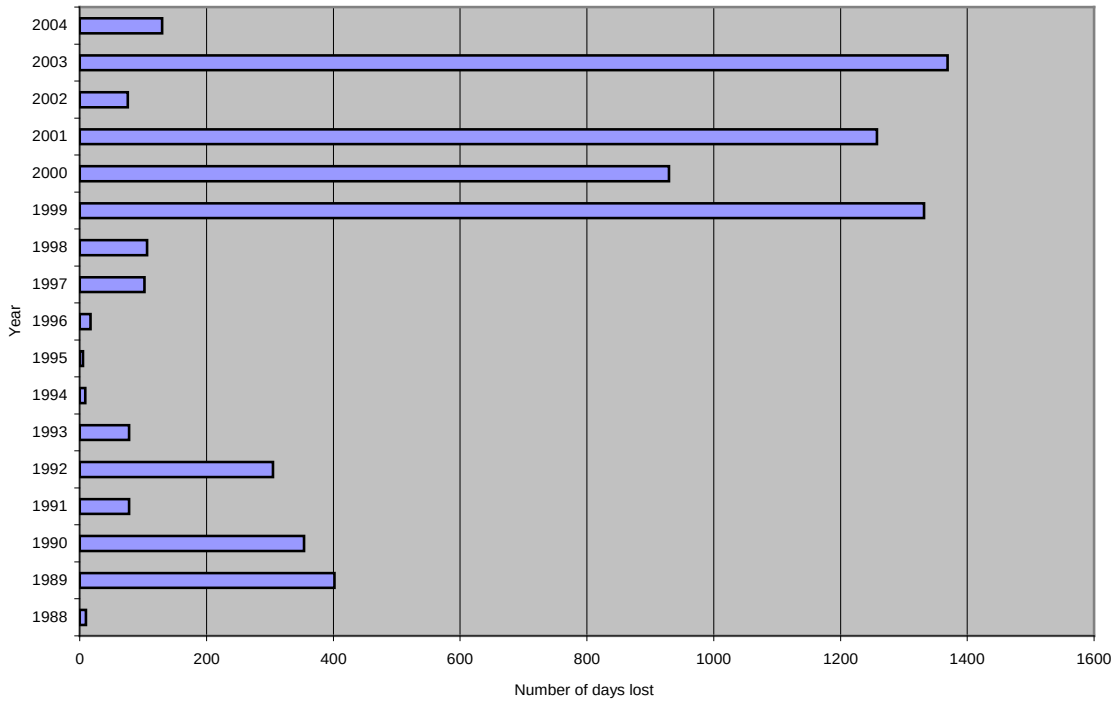

Figure 1. Number of days lost as a result of reports of psychological injury between the years 1988 and 2004.

Figure 2 depicts an increase in the number of stress claims from 1988 and 1993, and a decrease in claims between 1994 and 1997. This may be the result of changes in

legislation pertaining to employee eligibility and assessment of worker compensation, leading to the acceptance of fewer worker compensation claims. From 1998, however, the number of stress claims follows a similar trend to the previous (pre-1994).

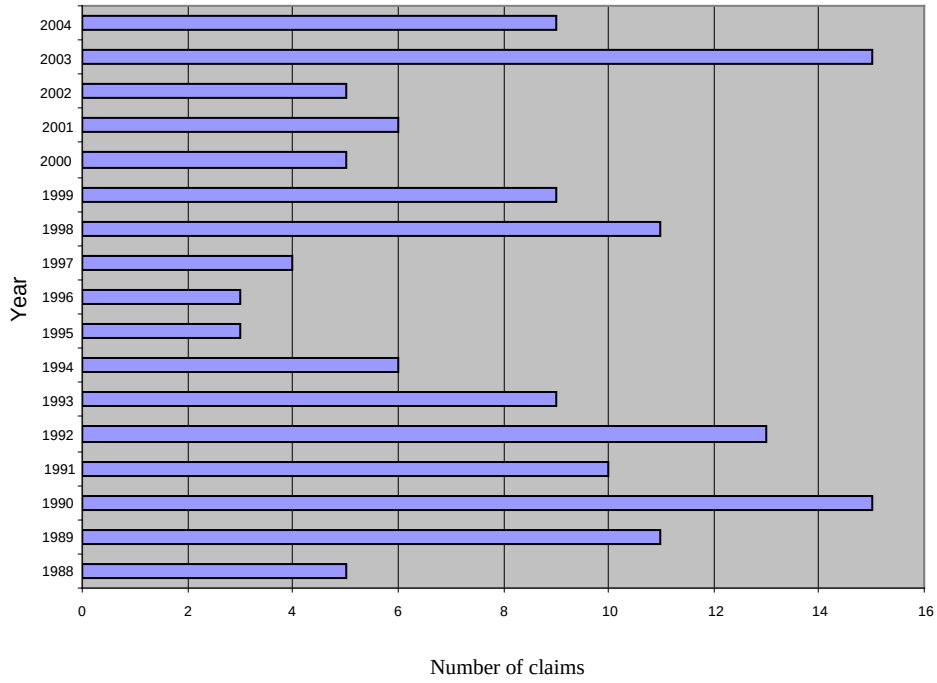

Figure 2. Number of stress claims made between 1988 and 2004.

Figure 3 indicates a gradual increase in cost for stress claims made between 1988 and 2004, particularly between the years 1998 and 2003.

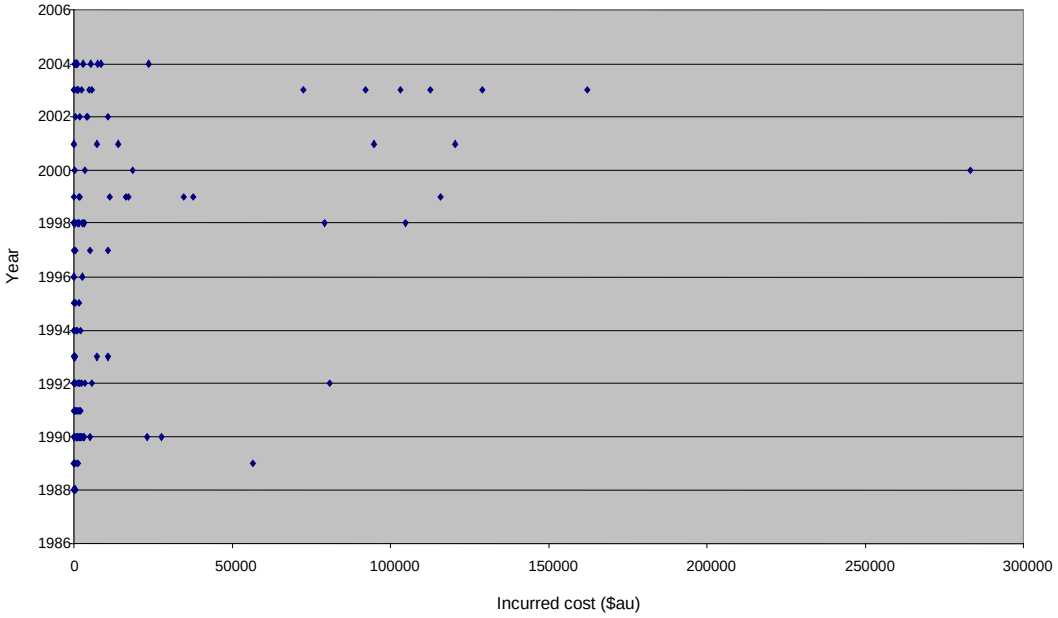

Figure 3. Incurred cost for stress claims made between the years of 1988 and 2004.

APPENDIX 2.1

Background to the European Nurses Early Exit Study (NEXT)

The European Nurses' Early Exit Study (NEXT), sponsored by the European Union, refers to ongoing research on nursing retention and well being, conducted simultaneously in 10 European countries. The countries include Belgium, France, the Netherlands, Italy, Finland, Germany, Great Britain, Slovakia, Poland, Norway and Sweden. The purpose of the research is to investigate 'The reasons, circumstances and consequences surrounding premature departure from the nursing profession. Of particular interest is the question of what consequences this step (departure) has for the person involved, as well as for their health care institution and for health care in general'. Members include more than 40 researchers in 14 research institutions (http://www.next.uni-wuppertal.de/).

APPENDIX 3.1

Spector et al's. (2000) six mechanisms whereby NA may affect job stressors and strains

The perception mechanism refers to the tendency for those with high NA to have their perceptions influenced based on a recurrent negative view of the world. This is either deemed by researchers to be NA bias, or viewed from the perspective that many psychological measures assess perceptions, and that perceptions influenced by NA are valid.

The hyper-responsivity mechanism mirrors the notion that high NA individuals will experience stressors and strain more often than individuals low in NA, despite environmental conditions. This indicates that NA will influence the strength of the relationship between stressors and strains.

The selection mechanism suggests that high NA individuals may be selected into jobs where there are likely to be more intense and stressful job conditions, such as low autonomy.

The stressor creation mechanism indicates that high NA individuals will create (objective) negative situations (rather than biased perceptions) based on their behaviour at work.

The *mood mechanism* suggests that it may be transitory mood, and not NA, affects the relationship between NA and job stressors and strain.

The *causality mechanism* implies that high NA may be caused by chronic job stressors, instead of contributing to the cause of stressors. In this case, NA mediates relationships between stressors and strains.

APPENDIX 3.2

Empirical work on work to family conflict (WFC) (Extended)

Work to family conflict has been studied as a predictor variable, an intermediate variable as well as an outcome variable, depending on research aims. However, the variable has scarcely been investigated in conjunction with emotion demands and emotion management (Wharton & Erickson, 1993).

Sources of distress or satisfaction are difficult to identify once stressors from the home, work and the work to family interface are combined (Cox, 1993). The majority of empirical research indicates that work to family conflict has more detrimental effects on individuals, families and organisations in terms of life distress and somatic symptoms than family to work conflict, respectively (Galinksi, 1993, cited by Hammer & Thompson, 2003; Grandey & Cropanzano, 1999). Mean WFC scores are generally higher in studies than FWC scores (Burke & Greenglass, 2001; Geurts & Demerouti, 2003). However, researchers must be cautious in ensuring that indicators of well-being are not predominantly job-related, so as to hold more relevance to WFC than to FWC (Warr, 1987, cited by Hellgren *et al.,* 2003).

It is thought that work to family spillover affects health via immune and hormonal stress responses, thereby affecting susceptibility to illness. Spillover may also influence health via health behaviours such as exercise or healthy eating habits (i.e., positive spillover), or avoidance behaviours, such as excessive alcohol use (i.e., negative spillover) (Grzywacz, 2002).

APPENDIX 3.3

Empirical research on types of social support

A distinction must be made between structural support and functional or enacted support. Structural support is usually assessed by consideration of social network indicators, such as marital status, social roles one may play, membership of organisations and groups, or numbers of friends. It is a measure of the mere availability of people able to provide assistance (Bowling *et al.,* 2004; Jones & Bright, 2001).

It is consistently confirmed that having few social relationships is a risk factor for poor health, and that the general beneficial effect of social support (via a direct effect) may occur through an individual's social integration in a large social community network, or a broad structure of support (Cohen & Wills, 1985). A large longitudinal study conducted by Berkman and Syme (1979) over nine years revealed that individuals low on the combined index of social network ties (e.g., marriage, extended family and friends, church membership, and membership in formal and informal groups) were twice as likely to die (as a general cause of death) after control of potential confounds. Each of the types of social tie were also linked to mortality. Replication studies by House, Robbins and Metzner (1982) and Schoenbach, Kaplan, Fredman and Kleinbaum (1986) that improved on limitations of the former study by using objective measures of health such as physical examinations, supported this view (Jones & Bright, 2001).

Functional or enacted support is determined by 'what individuals actually do when they provide support' (Barrera, 1986, cited by Jones & Bright, 2001). The most common categorisations of functional support described are emotional or esteem support, instrumental support and informational support. Emotional or esteem support refers to appreciation, empathy, value and acceptance, instrumental support includes practical help, such as financial support, while
informational support encompasses advice or guidance provided by others. Although conceptually distinct, emotional and instrumental support are often correlated (Bowling *et al.,* 2004).

Supportive behaviours expressed by close family and friends show the strongest relationship with wellbeing and may buffer constituents of strain. The 16-item Multi-Dimensional Support Scale assesses emotional, instrumental and information support via expression of behavioural actions such as attentiveness, empathy, attachment, instrumental help, direct information and modelling (Winefield, Winefield & Tiggeman, 1992). Sources of support including support provided from family and close friends, peers and supervisors are also an important feature of the scale. High reliability and validity for the MDSS has been demonstrated, with social support contributing twice the proportion of variance in psychological well-being after the effect of life stressors was removed (Walen & Lachman, 2000; Winefield, Winefield & Tiggeman, 1992).

In addition to perceived availability of social support, perceived adequacy of functional support, as well as quality of relationships, contribute to a reduction in psychological stress. The association between number of social connections and functional support received by individuals in reality may be low. Aligned with relationship quality, functional support may be sourced from only one close (supportive) relationship, and may be deemed adequate. From a cognitive appraisal perspective, and particularly for studies using self-report, it follows that support perceived as both available and adequate are most likely to buffer against stress (Cohen & Wills, 1985).

APPENDIX 3.4

Study 1: Information sheet

INFORMATION FOR PARTICIPANTS

Thank you for your interest in our study: **Job satisfaction and well being in South Australian nurses**. This study is being conducted within the Department of Psychology, and Royal Adelaide Hospital. Your participation is voluntary.

Background, Aim and Possible Benefits of the study:

Work requirements (or demands) and work conditions may individually or together contribute to outcomes of work stress or work satisfaction. Common job demands reported for nurses include a high workload, emotional demands, work-home conflict (where demands from work affect family life and vice versa), and exposure to traumatic events. A particular feature of nursing which makes it a challenging profession is the requirement to undertake a substantial proportion of emotional work. Emotional work includes expressing positive and negative emotions to help others deal with their own emotions, such as being friendly or sympathetic.

The performance of this type of work frequently involves providing support to patients and co-workers. Emotional work can also be a requirement of other roles in nurses' lives. For example, many nurses would perform parental, spousal, and other caring roles in which emotional work is performed. The carrying out of emotion work can lead to positive (in terms of benefits) as well as negative (in terms of added strain) outcomes, depending on the resources available (e.g., social support).

The focus of this study is to identify factors that contribute to the well-being and job satisfaction for the nursing profession, in light of the high workload of the nursing profession due to the current shortage of nurses in South Australia.

Participant Information:

If you are a nurse at the Royal Adelaide Hospital you are invited to participate in this study. As a volunteer taking part in this study you will be asked to complete a

group of questionnaires that include measures of work and family demands, emotion work, burnout and job satisfaction.

At the end of the questionnaire package, there will also be the opportunity to provide information about your current work situation. Participants are not being asked to sign their name to show consent, in case this causes concerns about revealing your identity. Your completion of these questions of the questionnaire will be taken to indicate your consent for your confidential data to be included in the study. Participation in the study will take approximately 45 minutes to complete. Please submit completed questions via the internal mail system (return address is indicated on accompanying envelopes).

All of the information gathered by the researchers will be confidential and will only be made available to the researchers. All data will be collected anonymously and coded and no employee will be identified. Brochures and other information outlining available resources and support for employees experiencing occupational stress will also be provided upon request. This information sheet is to remain the property of participants and you will be free to withdraw from the study at any time.

Further Information:

If you require any further information concerning the project, please contact me on 0417 830 716 or (08) 8235 1032 or e-mail sandra.pisaniello@adelaide.edu.au. Alternatively, you can contact my supervisors Dr. Helen Winefield during office hours on (08) 8303 3172 or e-mail helen.winefield@psychology.adelaide.edu.au, or Dr Paul Delfabbro during office hours on (08) 8303 5744 or email paul.delfabbro@psychology.adelaide.edu.au. If you wish to speak to someone not directly involved in the study, or have any complaints, please contact Dr Michael James, the chairman of the Royal Adelaide Hospital Research Ethics Committee on (08) 8222 4139, or Dr Peter Delin, the convenor of the psychology department's Human Ethics Subcommittee on (08) 8303 5007 or e-mail pdelin@psychology.adelaide.edu.au

APPENDIX 3.5

Study 1: Questionnaire Package

Critical Care

Job Satisfaction and Wellbeing in Nurses

This questionnaire package will ask about your experiences as a nurse with regard to:

- work and family;
- work-related stressors and resources;
- the expression of emotions at work and in caring relationships outside of paid work;
- job satisfaction;
- identification and involvement with the organisation and work history; and
- the general wellbeing of nurses.

Initially, questions relating to gender, age and your current work and life situation will be asked to gain a sense of the situations of participants, while keeping participation anonymous. Although the questions may seem repetitive, it is intended that accurate answers are sought to avoid assumptions being made relating to the answers provided for previous questions. Returned questionnaires that are not fully completed are also welcome.

Gender: Male ' Female '

Age:……

Marital status:

' Married
' Single
' Partner, living together or engaged
' Divorced/separated

Number of children under 18 Years

' None
' 1
' 2 or more

Are any of your children living with you?

' Yes
' No
' N/A

Do any other family members outside of your immediate family or friends live with you?

' Yes
' No

Working status:

' Full Time
' Part Time

Type of shift worked:

' 7-8 hour shift (morning)
' 7-8 hour shift (evening)
' 7-8 hour shift (night duty)
' 12 hour shift (morning to evening)
' 12 hour shift (evening to morning)
' Rotating shifts (7-8 hr shifts morning, afternoon and evening)
' Other, please specify……

Educational Background:

' Hospital training
' TAFE (1 yr) – enrolled nursing
' University degree (3-4 yrs) – registered nursing
' Graduate nursing program

Do you have any post-registration/enrolment qualifications or training?
If yes, please specify: ..……
…….
……

Hospital location: ……

Number of years at the hospital you are currently working at?

' Less than 5 years
' 5 to 10 years
' More than 10 years

Functional unit/area you are currently working in ……..

What is your current position?

- Enrolled nurse
- Registered nurse (level 1, Year 1)
- Registered nurse (level 1, Year 2)
- Registered nurse (level 1, Year 3)
- Registered nurse (level 1, Year 4)
- Registered nurse (level 1, Year 5)
- Registered nurse (level 1, Year 6)
- Registered nurse (level 1, Year 7)
- Registered nurse (level 1, Year 8)
- Registered nurse (level 1, Year 9)
- Clinical Nurse (level 2)
- Clinical Nurse Consultant (level 3)
- Nurse Manager (level 3)
- Nursing Director (level 4)
- Director of Nursing (level 5)

How long have you held this position at this hospital?

- Less than 5 years
- 5 to 10 years
- More than 10 years

Please indicate all the types of roles you maintain outside of work that are demanding or time-consuming:

- Partner or spouse
- Parent
- Friend
- Volunteer work
- Caring for aged parents
- Extended family member

This section refers to work and family demands and resources that nurses may have.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement to indicate the response most appropriate for you:

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

1. My work schedule often conflicts with my family life. _____
2. After work, I come home too tired to do some of the things I'd like to do. _____
3. On the job, I have so much work to do that it takes away from my personal interests. _____
4. My family dislikes how often I am preoccupied with my work while I am at home. _____
5. Because my work is so demanding, at times I am irritable at home. _____
6. The demands of my job make it difficult to be relaxed all the time at home. _____
7. My work takes up time that I'd like to spend with my family. _____
8. My job makes it difficult to be the kind of spouse or parent I'd like to be. _____
9. My family commitments often conflict with my work life. _____
10. After participating in family commitments I like, I come to work too tired. _____
11. My personal interests take away from the work I have to do on the job. _____
12. My supervisor dislikes how often I am preoccupied with my family commitments while I am at work. _____
13. Because my family commitments are demanding, at times I am irritable at work. _____
14. My family commitments make it difficult to be relaxed all the time at work. _____
15. My family commitments take up time that I would like to spend at work. _____
16. My family commitments make it difficult to be the kind of employee I'd like to be. _____
17. When things are going well at work, my outlook regarding my family life is improved. _____

18. Being in a positive mood at work helps me to be in a positive mood at home. _____

19. Being happy at work improves my spirits at home. _____

20. Having a good day at work allows me to be optimistic with my family. _____

21. Skills developed at work help me in my family life. _____

22. Successfully performing tasks at work helps me to more effectively accomplish family tasks. _____

23. Behaviours required by my job lead to behaviours that assist me in my family life. _____

24. Carrying out my family responsibilities is made easier by using behaviours performed at work. _____

25. Values developed at work make me a better family member. _____

26. I apply the principles my workplace values in family situations. _____

27. Values that I learn through my work experiences assist me in fulfilling my family responsibilities. _____

28. When things are going well in my family life, my outlook regarding my job is improved. _____

29. Being in a positive mood at home helps me to be in a positive mood at work. _____

30. Being happy at home improves my spirits at work. _____

31. Having a good day with my family allows me to be optimistic at work. _____

32. Skills developed in my family life help me in my job. _____

33. Successfully performing tasks in my family life helps me to more effectively accomplish tasks at work. _____

34. Behaviours required in my family life lead to behaviours that assist me at work. _____

35. Carrying out my work responsibilities is made easier by using behaviours performed as part of my family life. _____

36. Values developed in my family make me a better employee. _____

37. I apply the principles my family values in work situations. _____

38. Values that I learn through my family experiences assist me in fulfilling my work responsibilities. _____

These items refer to any experience of burnout.

Please choose the answer that is most applicable to you by placing a number between 1 and 5 in the space provided to the right of each statement.

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Never Seldom Sometimes Often Always

1. How often do you feel tired? _____
2. How often are you physically exhausted? _____
3. How often are you emotionally exhausted? _____
4. How often do you think: “I can’t take it anymore”? _____
5. How often do you feel worn out? _____
6. How often do you feel weak and susceptible to illness? _____

1. Is your work emotionally exhausting? _____
2. Do you feel burnt out because of your work? _____
3. Does your work frustrate you? _____
4. Do you feel worn out at the end of the working day/night? _____
5. Are you exhausted in the morning at the thought of another day/night at work? _____
6. Do you feel that every working hour is tiring for you? _____
7. Do you have enough energy for family and friends during leisure time? _____

1. Do you find it hard to work with patients? _____
2. Do you find it frustrating to work with patients? _____
3. Does it drain your energy to work with patients? _____
4. Do you feel that you give more than you get back when you work with patients? _____
5. Are you tired of working with patients? _____
6. Do you sometimes wonder how long you will be able to continue working with patients? _____

The next set of items deals with various aspects of your job. Please indicate how satisfied or dissatisfied you feel with each of these features of your present job.

1	2	3	4	5	6	7
I'm extremely dissatisfied	I'm very dissatisfied	I'm dissatisfied	I'm not sure	I'm moderately satisfied	I'm very satisfied	I'm extremely satisfied

1. The physical work conditions _____
2. The freedom to choose you own method of working _____
3. Your fellow workers _____
4. The recognition you get for good work _____
5. Your immediate boss _____
6. The amount of responsibility you are given _____
7. Your rate of pay _____
8. Your opportunity to use your abilities _____
9. Industrial relations between management and workers in your hospital _____
10. Your chance of promotion _____
11. The way your firm is managed _____
12. The attention paid to suggestions you make _____
13. Your hours of work _____
14. The amount of variety in your job _____
15. Your job security _____
16. Taking everything into consideration, how do you feel about your job as a whole? _____

The next section relates to work-related stressors or pressures that nurses may experience.

Please indicate the extent to which you *experience pressure in these situations* on the job using the following scale:

1	2	3	4	5
No pressure	Some pressure	Moderate pressure	More than average	Extreme pressure

1. Shortage of essential resources _____
2. Trivial tasks interfere with my professional role _____
3. Management misunderstands the real needs of my department _____
4. Deciding priorities _____
5. Lack of support from senior staff _____
6. Coping with new technology _____
7. Time pressures and deadlines _____
8. Lack of specialised training for the present task _____
9. Uncertainty about the degree or area of my responsibility _____
10. The demands of others for my time at work are in conflict _____
11. Dealing with relatives _____
12. Decisions or changes which affect me are made 'above,' without my knowledge or involvement _____
13. I spend my time 'fighting fires' rather than working to a plan _____
14. Bereavement counselling _____
15. Involvement with life and death situations _____
16. Tasks outside of my competence _____
17. Relationships with superiors. _____
18. My nursing and administrative role conflict _____
19. I only get feedback when my performance is unsatisfactory. _____
20. Difficult patients _____
21. Bringing about change in staff/hospital _____
22. Difficulty in dealing with aggressive people _____
23. Fluctuations in workload _____
24. Management expecting me to interrupt my work for new priorities _____

These questions relate to the expression of emotions at work in interacting or being supportive to a patient.

1. A typical interaction I have with a patient takes about _____ minutes

How often is it required that you do each of the following things at work:

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5
Never Rarely Sometimes Often Always

1. Show some strong emotions _____
2. Express particular emotions needed for your job _____
3. Express intense emotions _____
4. Work hard to actually experience the emotions you need to show to others _____
5. Express many different kinds of emotions while interacting with others _____
6. Resist expressing my true feelings _____
7. Express emotions I don't really have _____
8. How often do you actually feel the emotions you are expected to show? _____

These questions relate to *how often you are required to show or hide emotions* in order to be effective on the job. Please use this scale placing a number between 1 and 5:

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5
Not at all Sometimes Occasionally Often Always

1. Reassuring people who are distressed or upset. _____
2. Hiding your anger or disapproval about something someone has done (e.g., an act that is distasteful to you). _____
3. Remaining calm even when you are astonished. _____
4. Hiding your disgust over something someone has done. _____
5. Expressing feelings of sympathy (e.g., say you "understand," you are sorry to hear about something). _____
6. Hiding your fear of someone who appears threatening. _____
7. Expressing friendly emotions (e.g., smiling, giving compliments, making small talk). _____

The following section involves the completion of two components.

For each question:

1. **Please indicate *how often* you have done the following things to maintain close relationships, help, or give guidance to *people within your social circle*, including family, friends and workmates using the following scale:**

1 = Not at all or does not apply

2 = Some of the time (about once a month)

3 = Occasionally or a moderate amount of the time (about once a week)

4 = Often (about once a day)

5 = Frequently (more than once a day)

2. **Please also indicate whether each response applies to your *most significant* work relationships, home/social caring relationships, or both (indicate with W, H, or B).**

Please answer both columns for Parts 1 and 2 below:

	1 **2** **3** **4** **5**	**Work, home/social, both**
Warmth – How often have you shown verbal affection, spoken warmly, expressed kind words, etc to…?	_____	_____
Appreciate – How often have you praised, acknowledged or expressed appreciation to…?	_____	_____
Disclose – How often have you shared your innermost thoughts and feeling with...?	_____	_____
Include – How often have you asked about the thoughts, feelings and wellbeing of…?	_____	_____
Accompany – How often have you made the effort to spend time or do things together with…?	_____	_____

Play – How often have you initiated "play", e.g., games, jokes, humour with…? _____ _____

Social inclusion – How often have you organised social occasions e.g., parties, get togethers, sports for…? _____ _____

Listen – How often have you listened attentively to the problems or worries of…? _____ _____

Soothe – How often have you done things to soothe or calm…? _____ _____

Do extra – How often have you "taken the load off" […] because you knew they were stressed…? _____ _____

Protect – How often have you done things to protect […] from becoming stressed? (e.g., intervened if you thought they were being hurt or upset by someone else, done things to help them face difficult situations)? _____ _____

Relationship work – How often have you tried to talk about any problems in your relationship with…? _____ _____

Compromise - How often have you tried to change or compromise in order to improve your relationship with…? _____ _____

Mediate – How often have you acted as a third party to resolve conflict between […] and someone else (e.g., helped both sides listen to each other and come up with some solutions)? _____ _____

Suggest improvements – How often have you suggested to […] they take steps to improve their wellbeing? _____ _____

Discuss consequences – How often have you tried to help […] think through the consequences of their behaviour? _____ _____

Advise against harm – How often have you tried to persuade […] to stop doing something that was harmful? _____ _____

Stop harm – How often have you stopped […] from doing something that could be harmful? _____ _____

Explain social limits – How often have you discussed with […] rules and guidelines for socially acceptable behaviour? _____ _____

Social feedback – How often have you pointed out to […] that they may be upsetting or offending others (not just yourself)? _____ _____

Social acceptance – How often have you tried to change how […] behave to make them more socially acceptable to others? _____ _____

These words describe different feelings and emotions. Please read each item and then indicate to the extent to which you have felt this emotion *in the past few days.*

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

Interested _____	Distressed _____	Excited _____	Upset _____
Strong _____	Guilty _____	Scared _____	Hostile _____
Enthusiastic _____	Proud _____	Irritable _____	Alert _____
Ashamed _____	Inspired _____	Nervous _____	Determined _____
Attentive _____	Jittery _____	Active _____	Afraid _____

Please read each statement and place a number 0, 1, 2 or 3 to indicate how much the statement applied to you *over the past week*. The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of the time
3 Applied to me very much, or most of the time

1. I couldn't seem to experience any positive feeling at all _____
2. I found it difficult to work up the initiative to do things _____
3. I felt that I had nothing to look forward to _____
4. I felt down-hearted and blue _____
5. I was unable to become enthusiastic _____
6. I felt that I wasn't worth much as a person _____
7. I felt that life was meaningless _____

Below are some questions about the kind of help and support you have available to you in coping with your work and non-work life at present.

The questions refer to three different groups of people who might have been providing support to you *in the last month.* For each item please *tick the alternative* which shows your answer for each of the two columns below.

	Never	Sometimes	Often	Usually/Always	*Would have liked* More	Less	Right
A	**Firstly, think of your *family and close friends, especially the 2-3 who are most important to you.***						
1	How often did they really listen to you when you talked about your concerns or problems?						
2	How often did you feel that they were really trying to understand your problems?						
3	How often did they really make you feel loved?						
4	How often did they help you in practical ways, like doing things for you or lending you money?						
5	How often did they answer your questions or give you advice about how to solve your problems?						
6	How often could you use them as examples of how to deal with your problems?						
B	**Now, think *of other nurses at your level that you work with.***						
1	How often did they really listen to you when you talked about your concerns or problems?						
2	How often did you feel that they were really trying to understand your problems?						
3	How often did they help you in practical ways, like doing things for you or helping you at work?						
4	How often did they answer your questions or give you advice about how to solve your problem?						
5	How often could you use them as examples of how to deal with your problems?						
C	**Lastly, think *about your supervisors, such as senior nurses on your ward, and those managing more than one ward, and other medical staff at work and answer for the 2-3***						
1	How often did they really listen to you when you talked about your concerns or problems?						
2	How often did you feel that they were trying to understand your problems?						
3	How often did they fulfil their responsibilities towards you in helpful practical ways?						
4	How often did they answer your questions or give you advice about how to solve your problems?						
5	How often could you use them as examples of how to deal with your problems?						

A number of statements which people have used to describe themselves are given below.

Use the scale below by placing a number between 0 and 3 in the space provided to the right of each statement.

0 - - - - - - - - - 1 - - - - - - - - - 2 - - - - - - - - - 3
Almost Never Sometimes Often Almost Always

1. I feel pleasant _____
2. I feel nervous and restless _____
3. I feel satisfied with myself _____
4. I wish I could be as happy as others seem to be _____
5. I feel like a failure _____
6. I feel rested _____
7. I am "calm, cool and collected" _____
8. I feel that difficulties are piling up so that I cannot overcome them _____
9. I worry too much over something that doesn't matter _____
10. I am happy _____
11. I have disturbing thoughts _____
12. I lack self-confidence _____
13. I feel secure _____
14. I make decisions easily _____
15. I feel inadequate _____
16. I am content _____
17. Some unimportant thought runs through my mind and bothers me _____
18. I take disappointments so keenly that I can't put them out of my mind _____
19. I am a steady person _____
20. I get in a state of tension or turmoil as I think over my recent concerns and interests _____

These questions relate to the extent to which you feel that you are attached to, identify with, or are involved with your organisation.
Please indicate the extent of your agreement with the following questions using the scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

1. I do *not* feel like 'part of the family' at the organisation. _____
2. The organisation has a great deal of personal meaning for me. _____
3. I do *not* feel 'emotionally attached' to the organisation. _____
4. I feel a strong sense of belonging to the organisation. _____

Work history:

These details are requested so that we can match this information with the information provided in the questionnaires in order to increase our understanding of how work factors can have an effect on individual workers, and how work arrangements can be improved.

1. How many days were you absent from work in the last financial year? _____
2. Have you ever made a worker's compensation claim? _____
3. If so, for what reason was the claim made (e.g., stress, back injury)? _____

Is there anything else you would like to add regarding your work and how it affects you? If so, please add your comments here.

_____

_____

_____

_____

Thankyou for taking the time to fill out this confidential questionnaire package!

Your consideration is very much appreciated!

APPENDIX 4.1

Comparison of variable means (standard deviations) with past research

For the majority of measures, mean comparisons could not be made between the nursing sample in the first study and previous research samples of nurses, given that the same measures were not used between studies. In this case, comparisons are made with normative means provided by the authors of the measures used.

Predictors

Trait anxiety and depression

The trait anxiety scale mean (sd) was higher in the first study than the mean reported for the State-Trait Anxiety Inventory (Form Y) for working adults (Males: M = 34.89, SD = 9.19; females M= 34.79, SD = 9.22). However, the depression subscale mean (sd) was lower than those observed in Lovibond and Lovibond's (1995) large normative study (N=2,914) for the age groups 20-29 (M = 6.35, SD 6.85), 30-39 (M = 5.44, SD 7.13), and 50-59 (M = 5.28, SD= 7.80). The first study sample mean was similar to the 40-49 age group mean scores (M = 4.43, SD = 6.40), however.

Work to family and family to work conflict

The mean (sd) scores for the work to family and family to work conflict scales were unavailable for comparison with the previous literature.

Work to family and family to work positive spillover

Work-family spillover mean (sd) (M=37.28, SD=9.64) was identical to the mean reported by Hanson, Hammer and Colton (2006) (M=37.28, SD=9.64), whereas the family-work positive spillover mean (sd) (M=40.59, SD=7.06) was similar to the mean reported in Hanson, Hammer and Colton's research (M = 36.78, SD=9.45) However, it should be noted that Hanson, Hammer and Colton's research sample consisted of employees from a public utility company and an electronics design company from the United States.

Social support

Means (sds) of the social support subscales from Winefield, Winefield and Tiggemann's (1992) were not available. The frequency of the reporting of particular items was inspected instead. Apart from item 3 from each subscale, all item responses from the first study mimicked the trends of previous research in relation to the most frequently indicated items. For example, the highest values were reported for the 'usually/always' option for the Social Support from Family/Friends subscale, the 'Sometimes' category for Social Support from Colleagues, as well as Supervisor Social Support. The lowest number of responses for all sub-scales was 'never.'

For the adequacy sub-scales, responses from nurses in the present study tended to mirror those of previous research for family/friend and colleague social support. The majority of nurses indicated that support received was adequate, followed by the second largest group, who indicated that more support was required. Few nurses indicated that less support was necessary in their work and home lives. Interestingly, although responses for the 'would have liked more' category in relation to supervisor social support was high for both the first study sample and Winefield, Winefield and Tiggemann's (1992) study, in the first study, the highest group of nurses indicated that more support was required. Of note in comparing these results was the much larger sample size of Winefield *et al.,'s* (1992) study (N=483) in comparison to the first study. The seemingly lower values attributed to each item in Winefield *et al.,* (1992) study is likely to be the result of a larger sample size than a vast difference in perceived social support between nursing populations.

Emotion labour

The mean (sd) score observed in the first study was higher than the mean observed in Brotheridge and Lee's (1998) study (M=18.67, SD=8.25).
No comparison data was provided in relation to the Best and Downey (1998) Emotion Labour Requirements scale.

Emotion work

The mean (sd) scores observed by Strazdins' (2000) study of 261 health care professionals were similar to the mean scores found in the first study. Nurses in the first study performed slightly more companionship than service workers in Strazdins' (2000) study. For example, for manager, workmate, and service roles, Emotion Work (Companionship) mean (sd) scores were: (Manager: M=22.19, SD=5.27), (Workmate: M=23.93, SD=5.29), and (Service worker: M=21.01, SD=5.65), compared with a mean of 24.93 (SD=4.66) in the first study. Emotion Work (Help) mean (sd) scores for the three roles were (Manager: M=20.05, SD=5.44), (Workmate: M=19.99, SD=4.98), and (Service worker: M=23.08, SD=6.06, compared with M=22.27, SD=5.12, whereas Emotion Work (Regulation) mean (sd) scores were (Manager: M=14.34, SD=5.62), (Workmate: M=12.36, SD=4.77), and (Service worker: M=17.67, SD=6.75, compared with a mean of18.05 (SD=6.35).

Outcomes

Positive and negative affect

The mean (sd) scores for positive and negative affect in the first study (Positive Affect: M=33.3, SD=7.2; Negative Affect: M=17.4, SD=6.2) were similar to those found by Watson, Clark and Tellegen (1988) (Positive Affect: M=30, SD=7.56; Negative Affect: M=17.56, SD=6.4). The scores for both positive and negative affect obtained in the first study could therefore by generalised to adult and clinical samples.

'Stress'/strain

The mean (sd) scores for the subscales of the Nursing Stress Index used in the first study were slightly higher, though within the same range, as the values reported by Tyler and Cushway (1992). 'Dealing with patients and relatives' subscale mean scores were 2.89 (0.91), compared with 2.48 (0.84), 'Managing the workload 1' subscale mean scores were 2.65 (0.82) compared with 2.31 (0.76), 'Managing the workload 2' subscale scores were 2.58 (0.93) compared with 2.42 (0.82), the 'Organisational support and involvement' subscale mean scores were 2.58 (0.86), compared with 2.38

(0.85), and the ‘Confidence and competence in the role’ sub-scale scores were 2.28, (0.74), compared with 2.10 (0.54).

Emotional exhaustion

For the three subscales of emotional exhaustion, the overall mean (sd) scores were 10.75-15.67, and 12.47-13.92 points lower than overall mean scores reported in the PUMA study. Given that the PUMA project involved a sample of 1,917 people working in a variety of human service professions, such as hospital staff, social workers, and prison workers, it is not surprising that burnout scores in this study were higher than those reported in the first study. In addition, reports in the European NEXT study presented 60% of nursing staff with moderate to high burnout, which supported the first results with respect to personal and work-related burnout [65.37% Personal Burnout; 62.77% Work Burnout].

Job satisfaction

The mean (sd) score for job satisfaction was slightly lower in the first study than in Warr, Cook and Wall’s (1979) study (M=67.1, SD=11.4).

Affective commitment

The mean (sd) score for affective commitment in the first study was not compared with past research, given that some items of the scale were omitted in the first study. In addition, the means for individual item scores were not available for comparison. However, 53.19 per cent of nursing staff reported affective commitment scores that were above the expected average, in line with the 40-60% nurses reported to have reported high affective commitment scores on the Allen & Meyer (1990) Affective Commitment scale, used in the European NEXT study.

Overall, comparisons between the first study sample with samples that in turn, consisted of sub-samples each comprising different demographic characteristics and occupation groups, could have contributed to observed differences in mean (sd) scores

between the samples. In particular, the samples that had included of a variety of occupations were not directly comparable to studies that sampled single occupational groups. Notwithstanding this, the majority of directly comparable studies supported the first study results.

APPENDIX 4.2

Associations among predictors and outcomes and previous research

The findings of this study relating to associations between commonly studied individual difference and work environment factors (other than emotion labour and emotion work) and outcomes confirmed previous research findings. For example, both work to family and family to work conflict were significantly related to outcomes such as negative affect, and depression (Boles, Johnston & Hair, 1997; Frone, 2000; Frone, Russell & Cooper, 1997; Thomas & Ganster, 1995; Hellgren, Naswall, Sverke & Soderfeldt, 2003), stress (Boles, Johnston & Hair, 2001), burnout (Cordes & Doherty, 1993; Montgomery, Peeters, Schaufeli and Den Ouden, 2003), job dissatisfaction (Burke & Greenglass, 2001; Mesmer-Magnus & Viswesvaran, 2004) and affective commitment (negative) (Greenhaus & Beutell, 1985; Mesmer-Magnus & Viswesvaran, 2004; Simon, Kummerling, & Hasselhorn, 2004). Previous research investigating links between work to family and family to work conflict and positive effect could not be found, and were therefore not compared with the findings of this study. Trait anxiety was moderately-strongly related to variables such as stress and burnout (Bourbonnais, Comeau & Vazina, 1999), while self-reported absenteeism was related to stress, burnout (Bakker, Demerouti, de Boer & Schaufeli, 2003; Thomsen *et al.*, 1999) and job satisfaction (Thomsen *et al.*, 1999) in the presumed directions. Self-reported absenteeism was also related to making a workers compensation claim (Russell & Roach, 2002).

APPENDIX 4.3

Summary of hierarchical multiple regression analysis tables

Table 1

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Positive Affect

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	2.70	.13			1.84
Age	.22	.30			4.19**
Working Status	1.02	.07	.10	.10	< 1
Step 2					
Gender	1.78	.109			1.29
Age	.16	.22			3.24*
Working status	.39	.03			< 1
Trait Anxiety	-.32	-.36	.22	.12	-5.34**
Step 3					
Gender	2.45	.12			1.74
Age	.19	.25			3.55**
Working status	.79	.06			< 1
Trait anxiety	-.23	-.27			-3.56**
WFC	-.26	-.22			-2.77*
FWC	.06	.05			< 1
WFPS	-.06	-.06			< 1
FWPS	.07	.06			< 1
SS (Supervisor)	-.27	-.15			-1.86
SS (Colleagues)	.32	.15			1.90
SS (Friends/Family)	.02	.01	.28	.06	< 1
Step 4					

(Table 1 continued on next page)

Gender	1.78	.09			1.24
Age	.18	.24			3.40*
Working status	.74	.05			< 1
Trait anxiety	-.27	-.30			-4.06**
WFC	-.30	-.26			-3.13*
FWC	.09	.06			< 1
WFPS	.04	.04			< 1
FWPS	.04	.03			< 1
SS (Supervisor)	-.02	-.01			1.75
SS (Colleagues)	.30	.14			1.77
SS (Friends/Family)	.07	.04			< 1
EL (Reqs & Reg Strategies)	-.26	-.15			-2.08*
EL (Feigned Positive Emotion Expression)	-.22	.22			-.1.00
EL (Negative Emotion Suppression)	-.35	-.25			-1.34
EW (Companionship)	.14	.13			1.10
EW (Help)	-.02	-.14			< 1
EW (Regulation)	-.11	-.10	.34	.06	1.12

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.0001$ Overall: $R^2 = .34$, Adj. $R^2 = .27$. Step 1. $F(3,185) = 6.53$, $p < .0001$ Step 2 $F (4,185) =12.86$, $p < .0001$. Step 3 $F(11,185) = 6.18$, $p < .0001$. Step 4. $F(17,185) = 5.08$, $p <.0001$. AV= Availability. N= 186.

Table 2

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Negative Affect

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	1.36	.08			1.02
Age	-.09	-.14			1.89
Working Status	.41	.03			< 1
Step 2					
Gender	2.48	.14			2.11*
Age	-.02	-.03			< 1
Working status	-.34	-.03			< 1
Trait Anxiety	.34	.50	.26	.23	7.52**
Step 3					
Gender	2.59	.15			1.13*
Age	-.03	-.05			< 1
Working status	-.33	-.03			< 1
Trait Anxiety	.33	.43			5.81**
WFC	.09	.09			1.15
FWC	.04	.04			< 1
WFPS	.00	.07			< 1
FWPS	-.05	-.05			< 1
SS (Supervisor)	-.04	-.03			< 1
SS (Colleagues)	-.21	-.11			-1.44
SS (Friends/Family)	.08	.06	.29	.03	< 1
Step 4					
Gender	1.95	.11			1.58
Age	-.07	-.10			-1.48
Working status	.10	.01			< 1
Trait anxiety	.28	.36			4.95**

(Table 2 continued on next page)

WFC	.02	.02			< 1
FWC	.01	.01			< 1
WFPS	-.09	-.10			-1.23
FWPS	-.03	-.04			< 1
SS (Supervisor)	-.03	-.02			< 1
SS (Colleagues)	-.22	-.12			-1.53
SS (Friends/Family)	.05	.03			< 1
EL (Reqs & Reg Strategies)	-.02	-.02			< 1
EL (Feigned Positive Emotion Expression)	.27	.12			1.39
EL (Negative Emotion Suppression)	.20	.08			< 1
EW (Companionship)	-.22	-.17			-2.03*
EW (Help)	.28	.22			2.33*
EW (Regulation)	.05	.05	.36	.07	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * p < .05, ** p<.001 Overall: R^2 .36= , Adj. R^2=.30. Step 1. F(3, 185) = 1.76, p>.05 Step 2 F (4, 185) = 15.86, p < .0001. Step 3 F(11, 185) =6.58, p < .0001. Step 4. F(17, 185)= 5.61, p<.0001. AV = Availability. N=186.

Table 3

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Depression

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	.13	.01			< 1
Age	-.06	-.16			-2.23*
Working status	-1.05	.57	.05	.05	< 1
Step 2					
Gender	.67	.06			< 1
Age	-.02	-.05			< 1
Working status	-1.56	-.20			-3.15*
Trait Anxiety	.24	.52	.31	.26	8.24**
Step 3					
Gender	.67	.69			< 1
Age	-.03	-.07			-1.09
Working status	-1.34	-.17			-2.68*
Trait Anxiety	.20	.43			6.10**
WFC	.09	.14			1.91
FWC	.04	.05			< 1
WFPS	.03	.05			< 1
FWPS	-.07	-.13			-1.57
SS (Supervisor)	-.04	-.04			< 1
SS (Colleagues)	.08	.07			< 1
SS (Friends/Family)	-.05	-.06	.35	.04	< 1
Step 4					
Gender	.73	.07			1.03
Age	-.03	-.08			-1.19
Working status	-1.13	-.17			-2.68*

(Table 3 continued on next page)

Trait anxiety	.20	.43			5.92**
WFC	.08	.12			1.51
FWC	.02	.03			< 1
WFPS	-.01	-.01			< 1
FWPS	-.04	-.07			< 1
SS (Supervisor)	-.03	-.03			< 1
SS (Colleagues)	.07	.06			< 1
SS (Friends/Family)	-.03	-.04			< 1
EL (Reqs & Reg Strategies)	-.03	-.04			< 1
EL (Feigned Positive Emotion Expression)	.02	.02			< 1
EL (Negative Emotion Suppression)	.28	.17			2.05*
EW (Companionship)	-.06	-.08			< 1
EW (Help)	-.06	-.07			< 1
EW (Regulation)	.00	.00	.39	.04	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * p < .05, ** p<.001 Overall: R^2 = .39 , Adj. R^2=.33. Step 1. F(3, 186) = , p<.05 Step 2 F (4, 186) = , p < .0001. Step 3 F(11, 186) =, p < .0001. Step 4. F(11, 186)= , p<.0001. AV = Availability. N=187.

Table 4

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Stress

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	4.32	.10			1.30
Age	.06	.04			< 1
Working status	-1.05	-.03	.01	.01	< 1
Step 2					
Gender	5.58	.13			1.74
Age	.17	.10			< 1
Working status	-2.2	-.07			< 1
Trait Anxiety	.56	.29	.09	.08	3.98**
Step 3					
Gender	4.49	.10			1.60
Age	.05	.03			< 1
Working status	-1.11	-.04			< 1
Trait anxiety	.20	.11			1.54
WFC	1.12	.45			6.14**
FWC	.51	.17			2.40*
WFPS	.24	.11			1.44
FWPS	-.12	-.05			< 1
SS (Supervisor)	-.80	-.19			-2.64*
SS (Colleagues)	.94	.20			2.67*
SS (Friends/Family)	.34	.10	.37	.29	1.44
Step 4					
Gender	2.05	.05			< 1
Age	.00	.00			< 1
Working Status	-.21	-.01			< 1

(Table 4 continued on next page)

Trait anxiety	.08	.04			< 1
WFC	.89	.34			4.70**
FWC	.45	.15			2.17**
WFPS	.07	.03			< 1
FWPS	-.12	-.05			< 1
SS (Supervisor)	-.75	-.18			-.261*
SS (Colleagues)	.83	.17			-2.49*
SS (Friends/Family)	.28	.08			1.22
EL (Reqs & Reg Strategies)	.70	.18			2.79*
EL (Feigned Positive Emotion Expression)	.30	.05			< 1
EL (Negative Emotion Suppression)	1.18	.18			2.38*
EW (Companionship)	-.35	-.10			-1.39
EW (Help)	.28	.09			< 1
EW (Regulation)	-.02	-.01	.47	.09	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.001$ Overall: $R^2 = .47$, Adj. $R^2 = .42$. Step 1. $F(3,186) = .61$, $p > .05$. Step 2 $F(4,186) = 4.45$, $p < .05$. Step 3 $F(11,186) = 9.49$, $p < .0001$. Step 4. $F(17,186) = 8.75$, $p<.0001$. AV=Availability. N=187.

Table 5

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Personal Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	1.09	.10			1.30
Age	-.06	-.13			-1.77
Working status	-.75	-.09	.04	.04	-1.22
Step 2					
Gender	1.68	.15			2.32*
Age	-.01	-.02			< 1
Working Status	-1.30	-.16			-2.45*
Trait anxiety	.26	.53	.30	.27	8.27**
Step 3					
Gender	1.42	.11			1.82
Age	-.05	-.12			-1.93
Working Status	-.97	-.12			-1.99*
Trait anxiety	.17	.35			5.38**
WFC	.24	.37			5.28**
FWC	.04	.05			< 1
WFPS	.02	.03			< 1
FWPS	-.02	-.03			< 1
SS (Supervisor)	-.10	-.10			-1.42
SS (Colleagues)	.04	.04			< 1
SS (Friends/Family)	-.04	-.04	.45	.15	< 1
Step 4					
Gender	1.26	.11			1.82
Age	-.05	-.12			-1.93
Working Status	-.88	-.11			-1.82

(Table 5 continued on next page)

Trait anxiety	.16	.32			4.89**
WFC	.22	.05			4.52**
FWC	.01	.02			< 1
WFPS	-.01	-.01			< 1
FWPS	-.00	-.00			< 1
SS (Supervisor)	-.09	-.08			-1.20
SS (Colleagues)	.04	.03			< 1
SS (Friends/Family)	-.05	-.06			< 1
EL (Reqs & Reg Strategies)	.09	.09			1.45
EL (Feigned Positive Emotion Expression)	-.15	-.10			-1.39
EL (Negative Emotion Suppression)	.24	.14			1.94*
EW (Companionship)	-.07	-.08			-1.12
EW (Help)	.04	.05			< 1
EW (Regulation)	.04	.07	.49	.04	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.001$ Overall: $R^2 = .49$, Adj. $R^2 = .44$. Step 1. $F(3,185) = 2.23$, $p > .05$. Step 2 $F(4,185) = 19.38$, $p < .0001$. Step 3 $F(11,185) = 13.06$, $p < .0001$. Step 4. $F(17,185) = 9.44$, $p<.0001$. AV = Availability. N=186.

Table 6

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Work-related Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	.38	.04			< 1
Age	-.06	-.16			-2.21*
Working status	-.12	-.02	.03	.03	< 1
Step 2					
Gender	.83	.08			1.24
Age	-.02	-.06			< 1
Working status	-.53	-.07			-1.09
Trait anxiety	.20	.47	.23	.20	6.93**
Step 3					
Gender	.57	.06			1.02
Age	-.06	-.16			-2.82*
Working status	-.16	-.02			< 1
Trait anxiety	.10	.23			3.82**
WFC	.30	.51			7.89**
FWC	.04	.05			< 1
WFPS	.02	.04			< 1
FWPS	-.02	-.04			< 1
SS (Supervisor)	-.14	-.14			-2.22*
SS (Colleagues)	.06	.06			< 1
SS (Friends/Family)	.00	.00	.51	.28	< 1
Step 4					
Gender	.45	.05			< 1
Age	-.07	-.20			-3.42*
Working status	-.09	-.01			< 1

(Table 6 continued on next page)

Trait anxiety	.08	.19			3.03*
WFC	.28	.47			7.00**
FWC	.01	.01			< 1
WFPS	-.00	-.00			< 1
FWPS	-.02	-.04			< 1
SS (Supervisor)	-.13	-.14			-2.18*
SS (Colleagues)	.05	.05			< 1
SS (Friends/Family)	-.01	-.01			< 1
EL (Reqs & Reg Strategies)	.11	.12			2.07*
EL (Feigned Positive Emotion Expression)	.04	.03			< 1
EL (Negative Emotion Suppression)	.07	.05			< 1
EW (Companionship)	-.09	-.12			–1.71
EW (Help)	-.01	-.01			< 1
EW (Regulation)	.07	.12	.56	.04	1.72

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * p < .05, ** p<.001 Overall: R^2 =.56, Adj. R^2 =.51. Step 1. F(3,185) = 1.85, p >.05 Step 2 F (4, 185) =13.77, p < .0001. Step 3 F(11,185) =16.67, p < .0001. Step 4. F(17, 185) = 12.31, p<.0001. AV = Availability. N=186.

Table 7

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Patient-related Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	-1.55	-.14			-1.79
Age	-.03	-.06			< 1
Working status	.36	.04	.02	.02	< 1
Step 2					
Gender	-1.21	-.11			-1.45
Age	.00	.01			< 1
Working status	.03	.00			< 1
Trait Anxiety	.15	.31	.11	.08	4.24**
Step 3					
Gender	-1.19	-.10			-1.42
Age	-.02	-.04			< 1
Working Status	.19	.02			< 1
Trait anxiety	.09	.18			2.28*
WFC	.14	.20			2.38*
FWC	.10	.12			1.51
WFPS	-.00	-.00			< 1
FWPS	-.04	-.06			< 1
SS (Supervisor)	-.04	-.04			< 1
SS (Colleagues)	-.05	-.04			< 1
SS (Friends/Family)	.03	.03	.19	.08	< 1
Step 3					
Gender	-1.10	.10			-1.28
Age	-.02	-.04			< 1

(Table 7 continued on next page)

Working Status	.18	.02			< 1
Trait anxiety	.09	.19			2.32*
WFC	.11	.16			1.87
FWC	.09	.11			1.36
WFPS	.02	.03			< 1
FWPS	-.03	-.05			< 1
SS (Supervisor)	-.05	-.05			< 1
SS (Colleagues)	-.07	-.05			< 1
SS (Friends/Family)	.05	.05			< 1
EL (Reqs & Reg Strategies)	.25	.25			3.24*
EL (Feigned Positive Emotion Expression)	.17	-.11			-1.27
EL (Negative Emotion Suppression)	.07	.04			< 1
EW (Companionship)	-.06	-.07			< 1
EW (Help)	-.07	-.09			< 1
EW (Regulation)	-.03	-.04	.25	.07	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.001$ Overall: $R^2 = .25$, Adj. $R^2 = .18$. Step 1. $F(3,185) = 1.19$, $p > .05$. Step 2 $F(4,185) = 5.47$, $p < .0001$. Step 3 $F(11,185) = 3.65$, $p < .0001$. Step 4. $F(17,185) = 3.33$, $p < .0001$. AV = Availability. N=186.

Table 8

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Job Satisfaction

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	5.75	.14			1.84
Age	.04	.03			< 1
Working Status	4.27	.10	.02	.02	1.45
Step 2					
Gender	4.27	.10			1.45
Age	-.08	-.05			< 1
Working Status	1.79	.06			< 1
Trait anxiety	-.67	-.37	.15	.13	-5.16**
Step 3					
Gender	2.94	.07			1.24
Age	.03	.02			< 1
Working status	.59	.02			< 1
Trait anxiety	-.21	-.12			-1.89
WFC	-.86	-.35			-5.26**
FWC	-.39	-.13			-2.10*
WFPS	-.13	-.06			< 1
FWPS	.52	.23			3.18*
SS (Supervisor)	1.21	.31			4.68**
SS (Colleagues)	.09	.02			< 1
SS (Friends/Family)	-.16	-.05	.50	.35	< 1
Step 4					
Gender	2.72	.07			1.14
Age	.07	.05			< 1
Working Status	.50	.02			< 1

(Table 8 continued on next page)

Trait anxiety	-.15	-.08			-1.34
WFC	-.79	-.32			-4.83**
FWC	-.21	-.07			-1.13
WFPS	.01	.01			< 1
FWPS	.45	.19			2.70*
SS (Supervisor)	1.17	.30			4.66**
SS (Colleagues)	.12	.03			< 1
SS (Friends/Family)	-.17	-.05			< 1
EL (Reqs & Reg Strategies)	-.04	-.01			< 1
EL (Feigned Positive Emotion Expression)	-.16	-.03			< 1
EL (Negative Emotion Suppression)	-.95	-.15			-2.20*
EW (Companionship)	.35	.11			1.61
EW (Help)	.30	.10			1.22
EW (Regulation)	-.34	-.15	.56	.06	-2.07*

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.001$ Overall: $R^2 = .56$, Adj. $R^2 = .51$. Step 1. $F(3,185) = 1.27$, $p > .05$. Step 2 $F(4,185) = 7.75$, $p < .0001$. Step 3 $F(11,185) = 15.80$, $p < .0001$. Step 4. $F(17,185) = 12.34$, $p<.0001$. AV = Availability. N=186.

Table 9

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Affective Commitment

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	.19	.03			< 1
Age	.02	.09			1.26
Working Status	.58	.13	.02	.02	1.73
Step 2					
Gender	.25	.04			< 1
Age	.03	.11			1.52
Working Status	.64	.14			1.88
Trait anxiety	.03	.10	.03	.01	1.33
Step 3					
Gender	.45	.07			< 1
Age	.01	.05			< 1
Working Status	.74	.17			2.26*
Trait anxiety	-.00	-.01			< 1
WFC	-.02	-.05			< 1
FWC	-08	.18			2.20*
WFPS	.03	.09			1.07
FWPS	.00	.01			< 1
SS (Supervisor)	.13	.22			2.65*
SS (Colleagues)	.08	.12			1.41
SS (Friends/Family)	.03	.06	.17	.14	< 1
Step 4					
Gender	.47	.08			< 1
Age	.01	.06			< 1

(Table 9 continued on next page)

Working Status	.77	.17			2.32*
Trait anxiety	-.00	-.00			< 1
WFC	-.02	-.05			< 1
FWC	-.08	-.18			-2.11*
WFPS	.03	.10			1.09
FWPS	.01	.02			< 1
SS (Supervisor)	.13	.22			2.57*
SS (Colleagues)	.09	.13			1.49
SS (Friends/Family)	.03	.06			< 1
EL (Reqs & Reg Strategies)	-.03	-.05			< 1
EL (Feigned Positive Emotion Expression)	-.06	-.07			< 1
EL (Negative Emotion Suppression)	-.03	-.03			< 1
EW (Companionship)	.02	.05			< 1
EW (Help)	-.05	-.11			-1.00
EW (Regulation)	-.00	-.01	.19	.01	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * p < .05, ** p<.001 Overall: R^2 = .19, Adj. R^2 =.11. Step 1. F(3,187) =1.37 , p >.05. Step 2 F (4,187) = 1.47, p >.05. Step 3 F(11,187) =3.34 , p < .0001. Step 4. F(17,187) = 2.29, p<.05. AV = Availability. N=188.

Table 10

Summary of Hierarchical Regression Analysis of Individual Difference and Organisational Variables predicting Self-reported Absenteeism

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	-.29	-.01			< 1
Age	.06	.04			< 1
Working Status	-2.08	-.08	.01	.01	< 1
Step 2					
Gender	.00	.00			< 1
Age	.08	.06			< 1
Working Status	-2.35	-.09			-1.09
Trait anxiety	.12	.08	.01	.01	< 1
Step 3					
Gender	-.11	-.00			< 1
Age	.05	.04			< 1
Working Status	-2.26	-.08			-1.03
Trait anxiety	.03	.02			< 1
WFC	.27	.12			1.27
FWC	.32	.12			1.40
WFPS	.06	.03			< 1
FWPS	-.03	-.02			< 1
SS (Supervisor)	-.30	-.09			< 1
SS (Colleagues)	.37	.09			< 1
SS (Friends/Family)	.20	.07	.06	.04	< 1
Step 4					
Gender	-1.04	-.03			< 1
Age	.06	.04			< 1
Working Status	-2.13	-.08			< 1

(Table 10 continued on next page)

Trait anxiety	.01	.01			< 1
WFC	.23	.11			1.05
FWC	.38	.14			1.60
WFPS	.14	.07			< 1
FWPS	.13	-.06			< 1
SS (Supervisor)	-.28	-.08			< 1
SS (Colleagues)	.37	.09			< 1
SS (Friends/Family)	.10	.03			< 1
EL (Reqs & Reg Strategies)	.45	.13			1.52
EL (Feigned Positive Emotion Expression)	-.21	-.04			< 1
EL (Negative Emotion Suppression)	-.40	-.07			< 1
EW (Companionship)	.17	.06			< 1
EW (Help)	.18	.07			< 1
EW (Regulation)	-.05	-.02	.09	.03	< 1

Note: WFC = Work-Family Conflict, FWC = Family –Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS= Social Support, EL = Emotion Labour, EW = Emotion Work, Reqs = Requirements, Reg = Regulation. * $p < .05$, ** $p<.001$ Overall: $R^2 = .19$, Adj. $R^2 = .11$. Step 1. $F(3,187) = 1.37$, $p > .05$. Step 2 $F(4,187) = 1.47$, $p > .05$. Step 3 $F(11,187) = 3.34$, $p < .0001$. Step 4. $F(17,187) = 2.29$, $p<.05$. AV = Availability. N=179.

APPENDIX 4.4

Mediation: Extension

Limitations of Baron and Kenny's (1986) approach include low statistical power (Mackinnon, Lockwood, Hoofman, West & Sheets, 2002), vulnerability to Type 1 error, ignoring the possibility of suppression effects by not considering indirect and direct effects in their own right, and ignoring whether the indirect effect is significantly different from zero and in the expected direction (Mackinnon, Lockwood, Hoofman, West & Sheets, 2002; Preacher & Hayes, 2004; Shrout & Bolger, 2002).

Shrout and Bolger (2002) outline four ways in which partial mediation may occur.

The first situation is the observation of a direct effect between the predictor and outcome, in addition to an indirect effect via the mediator. The second situation is the assumption that the predictor variable has indirect effects on the outcome through more than one mediator, though only one mediator is included in the analysis. This situation is often referred to as model misspecification. The third situation characterises the instance of moderated mediation, whereby partial mediation may be suggested by the data for one group, but no mediation is observed for another group in a dataset. The two groups may equally represent the overall data set, though different mediation mechanisms apply to different members of the population. Due to the fact that the interaction between group and mediation processes cannot by accounted for in this case, this situation is also classified as model misspecification. A final situation involving misspecification is when a mediator variable is measured with error. When this occurs, associations of the mediator with a predictor and outcome variable, respectively, and therefore assessments of indirect effects are underestimated (Bollen, 1989, cited by Shrout & Bolger 2002).

APPENDIX 4.5

The Sobel test

The test involves the product ab,

where a = IV $\longrightarrow$ M and b = M $\longrightarrow$ DV is equivalent to (c - c').

The equation for the test is as follows:

$$t_{a*b} = \frac{a*b}{se_{ab}}$$

where:

$$se_{a*b} = \sqrt{(a^2 * seb^2) + (b^2 + sea^2)}$$

and a and b refer to the unstandardised regression coefficients, and 'se_b' and 'se_a' refers to the standard errors of those regression coefficients. The amount of explained variance accounted for by the mediation (and therefore the IV's effect on the outcome that is accounted by the mediation) is:

$$\frac{a*b}{(a*b) + c'} \quad \text{or} \quad \frac{c}{c - c'}$$

(Dudley, Benuzillo & Carrico, 2004; Mackinnon & Dwyer, 1993).

APPENDIX 5.1

Study 2: Information Sheet for Participants

INFORMATION FOR PARTICIPANTS

Thank you for your interest in our study: **Job satisfaction and well being in South Australian nurses**. This study is being conducted within the Department of Psychology and Flinders Private Hospital. Your participation is voluntary.

Background, Aim and Possible Benefits of the study:

Work requirements (or demands) and work conditions may individually or together contribute to outcomes of work stress or work satisfaction. Common job demands reported for nurses include a high workload, emotional demands, work-home conflict (where demands from work affect family life and vice versa), and exposure to traumatic events. A particular feature of nursing which makes it a challenging profession is the requirement to undertake a substantial proportion of emotion work. Emotion work includes expressing positive and negative emotions to help others deal with their own emotions, such as being friendly or sympathetic as part of a caring relationship.

The performance of this type of work frequently involves providing support to patients and co-workers. Emotion work can also be a requirement of other roles in nurses' lives. For example, many nurses would perform parental, spousal, and other caring roles in which emotion work is performed. The carrying out of emotion work can lead to positive (in terms of benefits) as well as negative (in terms of added strain) outcomes, depending on the resources available (e.g., social support).

In light of the high workload of the nursing profession due to the current shortage of nurses in South Australia, the broad focus of this study is to identify factors that contribute to more satisfaction for nurses, as well as factors that lead to outcomes such as decreased job satisfaction, low organisational commitment and decreased nurse

well being. These broad aims will be analysed in the context of the performance of emotion work (with specific questions focusing on this concept). Little is known about the nature of emotion work and the consequences of its performance in nursing, and less recognition has been given to this aspect of nursing relative to other facets of nursing.

Participant Information:

If you are a nurse at The Memorial Hospital you are invited to participate in this study. As a volunteer taking part in this study, you will be asked to complete a group of questionnaires that include measures of work and family demands, emotion work, burnout and job satisfaction. Participation in the study will take approximately 25-30 minutes to complete. Questionnaire packages have been sent to Nursing Administration to be distributed by Managers. Please submit completed questionnaires via post (return address is indicated on accompanying envelopes), or in the sealed box provided in Nursing Admin. Please only submit one questionnaire package per person. The more questionnaires returned, the more reliable the results and feedback given to all participants. Subsequent to this, if 40% of questionnaires distributed are returned, we would like to donate funding for staff development.

Although confidentiality and anonymity will be maintained, if for any reason you do not wish to respond to certain questions, you are free to leave questions or sections blank at any time. We are quite happy to receive incomplete questionnaires in this case.

All of the information gathered by the researchers will only be made available to the researchers. All data will be collected anonymously and coded and no employee will be identified. A one-page summary of the results will be provided to all participants, including management staff. The report will contain general trends of the entire nursing sample (including data from other hospitals involved). At the individual hospital level, general trends applying to nurses (average scores and variance) from individual hospital samples will be reported.

None of the hospitals will be identified where the results of more than one hospital are reported in order to maintain anonymity. We should note that questions relating to information such as hospital location and ward/unit area will merely be used to assess how variable the sample is (to ensure that all specialties are represented), and possibly to compare specialties across sites (using data that will include results from the other hospitals, so that identification of single hospitals will not occur).

Brochures and other information outlining available resources and support for employees experiencing occupational stress will also be provided upon request. This information sheet is to remain the property of participants and you will be free to withdraw from the study at any time.

Further Information:

Comments/Queries:

If you require any further information concerning the project, please contact:

Sandra Pisaniello – Project coordinator
Telephone: (08) 8235 1032
Mobile: 0417 830 716
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Telephone: (08) 8303 3172
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Postal address:

Attention: Sandra Pisaniello
Nursing Job Satisfaction and Well Being study
Department of Psychology
University of Adelaide
Adelaide, South Australia 5005.

Independent contact:

If you wish to speak to someone not directly involved in the study, or have any complaints, please contact Dr. Nick Burns, member of the University of Adelaide's Psychology Department's Human Ethics Subcommittee on (08) 8303 3965, or e-mail: nick.burns@psychology.adelaide.edu.au

APPENDIX 5.2

Study 2: Questionnaire package

Job Satisfaction and Wellbeing in Nurses

This questionnaire package will ask about your experiences as a nurse with regard to:

- work and family;
- work-related stressors and resources;
- the expression of emotions at work and in the context of maintaining caring relationships;
- job satisfaction;
- identification and involvement with the organisation and work history; and
- the general well being of nurses.

Initially, questions relating to gender, age and your current work and life situation will be asked to gain a sense of the situations of participants, while keeping participation anonymous. Although some questions may seem repetitive, this is to avoid assumptions being made relating to answers provided for previous questions. Returned questionnaires that are not fully completed are also welcome.

Gender: Male ' Female '

Age:……

Marital status:

' Married
' Single
' Partner, living together or engaged
' Divorced/separated
' Widowed

Number of children under 18 years

' None
' 1
' 2 or more

Are any of your children living with you?

' Yes
' No
' N/A

Do any extended family members (not including a spouse or children. If you aren't married, family members outside of parents and siblings) live with you?

' Yes
' No

Working status:

' Full Time
' Part Time

Hospital location: _____

Type of shift worked/hours worked: _____

Educational Background:

' Hospital training
' TAFE (1 yr) – enrolled nursing
' University degree (3-4 yrs) – registered nursing
' Graduate nursing program

Do you have any post-registration/enrolment qualifications or training?
If yes, please specify: ..……
…….
……

What is your current position?

' Enrolled nurse
' Registered nurse (level 1, Year 1)
' Registered nurse (level 1, Year 2)
' Registered nurse (level 1, Year 3)
' Registered nurse (level 1, Year 4)
' Registered nurse (level 1, Year 5)
' Registered nurse (level 1, Year 6)
' Registered nurse (level 1, Year 7)
' Registered nurse (level 1, Year 8)
' Registered nurse (level 1, Year 9)
' Clinical Nurse (level 2)
' Clinical Nurse Consultant (level 3)
' Nurse Manager (level 3)
' Nursing Director (level 4)
' Director of Nursing (level 5)

Number of years at the hospital at which you are currently working:

- Less than 5 years
- 5 to 10 years
- More than 10 years

What functional unit/area are you currently working in? _____

Predominantly, what is your average caseload (nurse to patient ratio)?
_____

How long have you held your current position at this hospital?

- Less than 5 years
- 5 to 10 years
- More than 10 years

Please indicate all the types of roles you maintain outside of work:

- Partner or spouse
- Parent
- Friend
- Volunteer work
- Caring for aged parents
- Extended family member (a family member other than a spouse or children). If you aren't married, family members outside of parents and siblings).

These words describe different feelings and emotions. Please read each item and then indicate to the extent to which you have felt this emotion *in the past few days.*

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

Interested _____	Excited _____	Strong _____	Enthusiastic _____
Proud _____	Alert _____	Inspired _____	Determined ____
Attentive _____	Active _____		

This section refers to work and family demands and resources that nurses may have.

Please use the scale below and place a number ranging between 1 and 5 in the space provided to the right of each statement to indicate the response most appropriate for you.

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

1. My work schedule often conflicts with my family life. _____
2. After work, I come home too tired to do some of the things I'd like to do. _____
3. On the job, I have so much work to do that it takes away from my personal interests. _____
4. My family dislikes how often I am preoccupied with my work while I am at home. _____
5. Because my work is so demanding, at times I am irritable at home. _____
6. The demands of my job make it difficult to be relaxed all the time at home. _____
7. My work takes up time that I'd like to spend with my family. _____
8. My job makes it difficult to be the kind of spouse or parent I'd like to be. _____
9. When things are going well at work, my outlook regarding my family life is improved. _____
10. Being in a positive mood at work helps me to be in a positive mood at home. _____
11. Being happy at work improves my spirits at home. _____
12. Having a good day at work allows me to be optimistic with my family. _____
13. Skills developed at work help me in my family life. _____
14. Successfully performing tasks at work helps me to more effectively accomplish family tasks. _____
15. Behaviours required by my job lead to behaviours that assist me in my family life. _____
16. Carrying out my family responsibilities is made easier by using behaviours performed at work. _____
17. Values developed at work make me a better family member _____

18. I apply the principles my workplace values in family situations. _____

19. Values that I learn through my work experiences assist me in fulfilling my family responsibilities. _____

20. When things are going well in my family life, my outlook regarding my job is improved. _____

21. Being in a positive mood at home helps me to be in a positive mood at work. _____

22. Being happy at home improves my spirits at work. _____

23. Having a good day with my family allows me to be optimistic at work. _____

24. Skills developed in my family life help me in my job. _____

25. Successfully performing tasks in my family life helps me to more effectively accomplish tasks at work. _____

26. Behaviours required in my family life lead to behaviours that assist me at work. _____

27. Carrying out my work responsibilities is made easier by using behaviours performed as part of my family life. _____

28. Values developed in my family make me a better employee. _____

29. I apply the principles my family values in work situations. _____

30. Values that I learn through my family experiences assist me in fulfilling my work responsibilities. _____

31. My family commitments often conflict with my work life. _____

32. After participating in family commitments I like, I come to work too tired. _____

33. My personal interests take away from the work I have to do on the job. _____

34. My supervisor dislikes how often I am preoccupied with my family commitments while I am at work. _____

35. Because my family commitments are demanding, at times I am irritable at work. _____

36. My family commitments make it difficult to be relaxed all the time at work. _____

37. My family commitments take up time that I would like to spend at work. _____

38. My family commitments make it difficult to be the kind of employee I'd like to be. _____

Please indicate your level of agreement with the following question using the scale below:

1	2	3	4	5	6	7
I'm extremely dissatisfied	I'm very dissatisfied	I'm dissatisfied	I'm not sure	I'm moderately satisfied	I'm very satisfied	I'm extremely satisfied

Taking everything into consideration, how do you feel about your job as a whole? _____

These items refer to any experience of burnout.

Please choose the answer that is most applicable to you by placing a number ranging between 1 and 5 in the space provided to the right of each statement.

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

1. How often do you feel tired? _____
2. How often are you physically exhausted? _____
3. How often are you emotionally exhausted? _____
4. How often do you think: "I can't take it anymore"? _____
5. How often do you feel worn out? _____
6. How often do you feel weak and susceptible to illness? _____

1. Is your work emotionally exhausting? _____
2. Do you feel burnt out because of your work? _____
3. Does your work frustrate you? _____
4. Do you feel worn out at the end of the working day/night? _____
5. Are you exhausted in the morning at the thought of another day/night at work? _____
6. Do you feel that every working hour is tiring for you? _____

1. Do you find it hard to work with patients? _____
2. Do you find it frustrating to work with patients? _____
3. Does it drain your energy to work with patients? _____
4. Do you feel that you give more than you get back when you work with patients? _____
5. Are you tired of working with patients? _____
6. Do you sometimes wonder how long you will be able to continue working with patients? _____

The next section relates to work-related stressors or pressures that nurses may experience.

Please indicate the extent to which you *experience pressure in these situations* on the job using the following scale:

1	2	3	4	5
No pressure	Some pressure	Moderate pressure	More than average	Extreme pressure

1. Shortage of essential resources _____
2. Trivial tasks interfere with my professional role _____
4. Deciding priorities _____
5. Time pressures and deadlines _____
6. The demands of others for my time at work are in conflict _____
7. Dealing with relatives _____
8. I spend my time 'fighting fires' rather than working to a plan _____
9. Having to provide bereavement counselling _____
10. Involvement with life and death situations _____
11. My nursing and administrative role conflict _____
12. Difficult patients _____
13. Difficulty in dealing with aggressive people _____
14. Management expecting me to interrupt my work for new priorities _____

These questions relate to *how often you are required to show or hide emotions* in order to be effective on the job. Please use the scale provided.

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5
Not at all Sometimes Occasionally Often Always

1. Reassuring people who are distressed or upset. _____
2. Hiding your anger or disapproval about something someone has done (e.g., an act that is distasteful to you). _____
3. Remaining calm even when you are astonished. _____
4. Hiding your disgust over something someone has done. _____
5. Expressing feelings of sympathy (e.g., say you "understand," you are sorry to hear about something). _____
6. Hiding your fear of someone who appears threatening. _____
7. Expressing friendly emotions (e.g., smiling, giving compliments, making small talk. _____

The following section relates to *emotions in the workplace*.

Please indicate *how often* you have done the following things to maintain close relationships or give guidance to patients using the following scale:

1 = Not at all or does not apply

2 = Some of the time (about once a month)

3 = Occasionally or a moderate amount of the time (about once a week)

4 = Often (about once a day)

5 = Frequently (more than once a day)

Please answer in the column below:	**1**	**2**	**3**	**4**	**5**
1. How often have you shown verbal affection, spoken warmly, expressed kind words, etc to patients?					
2. How often have you praised, acknowledged or expressed appreciation to patients?					
3. How often have you shared your innermost thoughts and feelings with patients?					
4. How often have you asked about the thoughts, feelings and wellbeing of patients?					
5. How often have you made the effort to spend time with patients?					
6. How often have you initiated “play”, e.g., games, jokes, humour with patients?					
7. 'How often have you done something special for a patient, such as organise the celebration of a special event, or organise other activities for patients?'					
8. How often have you tried to help a patient think through the consequences of their behaviour?					
9. How often have you tried to persuade a patient to stop doing something that was harmful?					

10. How often have you stopped a patient from doing something that could be harmful? _____

11. How often have you discussed with a patient rules and guidelines for socially acceptable behaviour? _____

12. How often have you pointed out to patients that they may be upsetting or offending others (not just yourself)? _____

13. How often have you tried to change how a patient behaves to make them more socially acceptable to others? _____

These questions relate to the extent to which you feel that you are attached to, identify with, or are involved with your organisation. Please indicate the extent of your agreement with the following questions using the following scales:

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

1. I do *not* feel like 'part of the family' at the organisation. _____

2. The organisation has a great deal of personal meaning for me. _____

3. I do *not* feel 'emotionally attached' to the organisation. _____

4. I feel a strong sense of belonging to the organisation. _____

5. I think that I could easily become as attached to another organisation as I am to this one. _____

6. I really feel as if this organisation's problems are my own. _____

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Never	Seldom	Occasionally	Often	Always

1. How frequently have you thought about leaving nursing? _____

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Very unlikely Not Likely Unsure Likely Very likely

2. How likely is it that you would search for a job in another organisation? _____

3. How likely is it that you will leave the organisation in the next year? _____

These questions relate to the amount of autonomy nurses have in performing the demands of their job. Please indicate your level of agreement with the items using the following scale:

1 - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - 5

Strongly Disagree Disagree Neither Agree Strongly Agree

1. I have control over the scheduling of my work. _____
2. I have some control over the sequencing of my work activities (when I do what) _____
3. I *do not* have as much choice about how much time I spend interacting with patients as I would like. _____
4. I am *un*able to choose the way to go about my job. _____
5. I am able to participate in the decision making of management. _____

Work history:

These details are requested so that we can match this information with the information provided in the questionnaires in order to increase our understanding of how work factors can have an effect on individual workers, and how work arrangements can be improved.

1. How many days were you absent from work in the last financial year? _____
2. Have you ever made a worker's compensation claim? _____
3. If so, for what reason was the claim made (e.g., stress, back injury)? _____

Below are some questions about the kind of help and support you have available to you at work in coping with your work and non-work life at present.

The questions refer to two different groups of people who might have been providing support to you *in the last month.*
For each item please *tick the response that applies to you* in the column below.

	Never	Sometimes	Often	Usually
A Firstly, think of your *family and close friends, especially the 2-3 who are most important to you.*				
1 How often did they really listen to you when you talked about your concerns or problems?				
2 How often did you feel that they were really trying to understand your problems?				
3 How often did they really make you feel loved?				
4 How often did they help you in practical ways, like doing things for you or lending you money?				
5 How often did they answer your questions or give you advice about how to solve your problems?				
6 How often could you use them as examples of how to deal with your problems?				
B Now, think *of other nurses at your level that you work with.*				
1 How often did they really listen to you when you talked about your concerns or problems?				
2 How often did you feel that they were really trying to understand your problems?				
3 How often did they help you in practical ways, like doing things for you or helping you at work?				
4 How often did they answer your questions or give you advice about how to solve your problem?				
5 How often could you use them as examples of how to deal with your problems?				
C Lastly, think *about your supervisors, such as senior nurses on your ward, and those managing more than one ward, and other medical staff at work and answer for the 2-3 that you see most.*				
1 How often did they really listen to you when you talked about your concerns or problems?				
2 How often did you feel that they were trying to understand your problems?				
3 How often did they fulfil their responsibilities towards you in helpful practical ways?				
4 How often did they answer your questions or give you advice about how to solve your problems?				
5 How often could you use them as examples of how to deal with your problems?				

A number of statements which people have used to describe themselves are given below. Use the scale below by placing a number between 0 and 3 in the space provided to the right of each statement.

0 - - - - - - - - - 1 - - - - - - - - - 2 - - - - - - - - - 3
Almost Never Sometimes Often Almost Always

1. I feel pleasant _____
2. I feel nervous and restless _____
3. I feel satisfied with myself _____
4. I wish I could be as happy as others seem to be _____
5. I feel like a failure _____
6. I feel rested _____
7. I am “calm, cool and collected” _____
8. I feel that difficulties are piling up so that I cannot overcome them _____
9. I worry too much over something that doesn’t matter _____
10. I am happy _____
11. I have disturbing thoughts _____
12. I lack self-confidence _____
13. I feel secure _____
14. I make decisions easily _____
15. I feel inadequate _____
16. I am content _____
17. Some unimportant thought runs through my mind and bothers me _____
18. I take disappointments so keenly that I can’t put them out of my mind _____
19. I am a steady person _____
20. I get in a state of tension or turmoil as I think over my recent concerns and interests _____

Please consider these scenarios and write as much as you like in responding to the questions. We are interested in how and why certain emotions are expressed by nurses depending on different circumstances and contexts, with the view that each nurse is an independent individual.

Scenario 1:

One of the patients in your caseload is a 50 yr old woman with a chronic and terminal illness, and who has remained in your ward for over 2 weeks. She is pleasant, though is at times lonely when her family are not visiting. She seems to want to talk about some personal issues. In terms of expressing emotions while interacting with her:

- What do you do, and what circumstances might affect what you do?

_____
_____
_____
_____
_____

- How much would you control expression of your own feelings for the patient's sake?

_____
_____
_____
_____
_____

- How does it make you feel at the end of it?

_____
_____
_____
_____
_____

- Who taught you or showed you how to do this?

_____
_____
_____
_____
_____

Scenario 2:

One of the patients in your caseload is a 35 year old male with a previous alcohol addiction and a history of involving himself in risk taking behaviours. He is verbally abusive, and non-compliant, and his behaviour seems to be offend to other patients, medical and nursing staff, an issue that may need to be addressed. In terms of expressing emotions while interacting with him:

- What do you do, and what circumstances might affect what you do?

_____
_____
_____
_____
_____

- How much would you control expression of your own feelings for the patient's sake?

_____
_____
_____
_____
_____

- How does it make you feel at the end of it?

_____
_____

_____
_____
_____
_____

- Who taught you or showed you how to do this?

_____
_____
_____
_____
_____
_____

Scenario 3:

Your immediate nursing manager appears to be juggling rosters, staffing and budgets. In doing so, he/she does not seem to be taking into account your previous requests to be rostered on for particular shifts, or any other concerns raised. The ward you are working on also appears to be understaffed. Talking to the manager is difficult as he/she is always busy. In terms of expressing emotions while interacting with him/her:

- What do you do, and what circumstances might affect what you do?

_____
_____
_____
_____
_____

- How much would you control expression of your own feelings?

_____
_____
_____
_____
_____

- How does it make you feel at the end of it?

_____
_____
_____
_____
_____
_____

- Who taught you or showed you how to do this?

_____
_____
_____
_____
_____
_____

Is there anything else you would like to add regarding your work and how it affects you? If so, please add your comments here.

_____
_____
_____
_____
_____
_____
_____
_____

Thank you for taking the time to fill out this confidential questionnaire package.

Your consideration is very much appreciated!

APPENDIX 6.1

Comparison of variable means (standard deviations) with past research

The majority of measures used in the first study were replicated in the second study. The mean (sd) and internal reliability scores of the measures used in the previous literature were compared to the mean scores observed in the second study, as well as to then mean (sd) and reliability scores of the first study. For the majority of measures, similar mean scores were observed between studies. This finding provides confidence and support in the validity of the measures, as well as in generalising the findings to public or private hospital nurses working in Australian hospitals.

Predictors

Trait anxiety

The trait anxiety scale mean (sd) score (once adjusted for the omitted item) was much lower in the second study (M=19.93, SD=10.13) than the mean reported for the State-Trait Anxiety Inventory (Form Y) for working adults (Males: M=34.89, SD=9.19; females M=34.79, SD=9.22), and the mean (sd) score for the first study (M=41.12, SD=8.62). This suggests that trait anxiety was more prevalent among public than private nursing staff, although lower overall than the mean (sd) scores in working adults of a similar age range.

Work to family and family to work conflict

The mean (sd) scores for the work to family and family to work conflict scales were unavailable for comparison with the previous literature. The mean (sd) scores for work to family conflict between the two studies conducted were similar (within 1.5 points of each other) (Study 1: M=, SD=; Study2: M=, SD=) as were the mean (sd) scores for family to work conflict in both studies.

Work to family and family to work positive spillover

Work to family and family to work positive spillover mean (sds) scores of the second study (Work-Family: M=38.30, SD=7.29, Family-Work: M=39.65, SD=6.65) were similar to those reported by Hanson, Hammer and Colton (2004) (Work-family:

M=37.28, SD=9.64, and Family-work: M = 36.78, SD=9.45), as well as the mean (sd) scores reported in the first study.

Social support

As mean (sd) scores of the social support availability subscales from Winefield, Winefield and Tiggemann's (1992) were not available, frequencies for items were inspected instead. All item responses from the second study mimicked both general trends from Winefield et al's (1992) study across the likert scale range (1=Never, 2=Sometimes, 3=Often, 4=Usually/Always), as well as those for the first study. The highest values were reported for the 'usually/always' option for the Social Support from Family/Friends subscale, and the 'Sometimes' category for Social Support from Colleagues and Supervisor Social Support subscales. The lowest number of respondents indicated 'never' for all three subscales. Social support (availability) mean (sd) scores between the first and second were similar (less than .80 difference).

Autonomy

Mean (sd) scores cannot be compared in relation to the autonomy measure, given that the researcher constructed the autonomy measure for the purpose of conducting the study.

Emotion labour

No comparison data was provided in relation to the Best and Downey (1998) Emotion Labour Requirements scale.

Emotion work

Mean (sd) scores of emotion work observed by Strazdins (2000) were similar to mean scores found in the second study as well as those in the first study with respect to companionship, and regulation. However, nurses in the second study, as in the first

study, performed slightly more companionship than service workers in Strazdins' (2000) study. For manager, workmate, and service roles, Emotion Work (Companionship) mean scores were (M=22.19, SD=5.27), (M=23.93, SD=5.29), and (M=21.01, SD=5.65, compared a mean score of 24.41 (SD = 5.81) in the second study, whereas Emotion Work (Regulation) mean scores were (M=14.34, SD=5.62), (M=12.36, SD=4.77), and (M=17.67, SD=6.75), compared with a mean value of 12.41 (5.12) in the second study.

It was noted, however, that one item was removed from the original regulation scale for use in the second study, so that the average mean score was expected to be lower than other average mean score when compared with both the previous literature and in the first study. Therefore, mean (sd) scores for regulation differed by 5.6 points between the two studies due to the item change.

Outcomes

Positive affect

The positive Affect scores between both studies conducted by the researcher were almost equal in value (Study 1: M=30.00, SD=7.56; Study 2: M=30.88, SD=8.04), as well as similar to those found by Watson, Clark and Tellegen (1988) (M=30, SD=7.56).

'Stress'/strain

Interestingly, the mean (sd) scores for subscales of the Nursing Stress Index used in the second study were close in value to those reported by Tyler and Cushway (1992) as well as those reported in the first study. However, standard deviation scores were larger, possibly due to the comparatively smaller sample size in the second study. 'Dealing with patients and relatives' subscale mean score was 2.45 (SD=1.15), 'Managing the workload 1' subscale mean score was 2.63 (SD=0.76), whereas the 'Managing the workload 2' subscale mean scores (with one item removed compared to the previous study) was 2.56 (SD=0.77).

Emotional exhaustion

For the subscales of emotional exhaustion, overall mean scores were 17.51 (personal burnout) and 15.60 (patient-related burnout) points lower than overall mean (sd) scores for personal and patient-related burnout reported in the PUMA study. As suggested when discussing the primary study results, the PUMA project involved a sample of 1,917 people working in a variety of human service professions, so it is not surprising that burnout scores in this study were higher than those reported in the second study. It was anticipated that the work-related burnout average mean scores would be much lower than means values reported in the PUMA and first study results. The difference in average mean (sd) scores for work-related burnout between the first and second studies was 3.98, indicating that should the deleted item of the scale have been retained, the average mean score fort work-related burnout would have been similar mean scores reported in the previous literature. In line with previous reported findings (European NEXT study and the previous study), 60.80% nurses in the second study reported personal burnout scores that were above the average (moderate to high). .

Job satisfaction

The overall job satisfaction item mean (sd) score (M=4.79, SD=1.30) was lower than the mean (sd) score reported in Warr, Cook and Wall's (1979) studies [M=5.24 and M=5.37]. However, Warr, Cook and Wall's studies included higher sample sizes (N=200 and N=390) than the second study.

Affective commitment

The mean (sd) score for affective commitment in the second study was compared with Allen and Meyer's (1990) study, as the original items of the scale that were omitted in the first study were retained in the second study. When compared, the mean score observed for affective commitment in the second study (M=16.88, SD=4.32) was higher than the mean score reported by Allen and Meyer (M=4.86, SD=1.38). The mean scores for European nurses in the NEXT study (Stordeur, D'Hoore, van der Heijden, Dibisceglie, Laine and van der Schoot, 2003) were also in the order of 3-4.3.

Interestingly, this indicates that nurses in the second study experienced higher affective commitment that nurses in previous research.

Intention to leave

Mean (sd) scores cannot be compared in relation to intention to leave, given that the questionnaire items of the measure were both compiled by the researcher and adapted from previous research (Allen and Meyer, 1990; Hasselhorn, Tackenberg and Muller, 2003). Therefore, the measure had not been validated in previous research.
Compared to 15.6% of European nurses, 30.8% of nurses in the second study reported that they had considered leaving nursing '*often.*'

Self-reported absenteeism

Mean (sds) scores for the first and second studies were reasonably close in number when taking account the difference in sample size (Study 1: M=11.07, SD=16.87; Study 2: M=8.13, SD=14.27).

For the majority of measures, similar mean scores were observed. This finding provides further confidence and support in the validity of the constructs as well as in generalising the results to South Australian hospital nurses.

APPENDIX 6.2

Summary of hierarchical multiple regression analysis tables

Table 1

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Positive Affect

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	-2.35	-.06			< 1
Age	.05	.05			< 1
Working Status	-1.83	-1.1	.02	.02	-1.34
Step 2					
Gender	-1.10	-.03			< 1
Age	.03	.03			< 1
Working Status	-1.95	-.12			-1.52
Trait anxiety	-.30	-.37	.16	.14	-4.80***
Step 3					
Gender	-2.22	-.06			< 1
Age	.04	.05			< 1
Working Status	-1.14	-.07			< 1
Trait anxiety	-.20	-.26			-2.65*
WFC	.03	.03			< 1
FWC	-.29	-.18			-2.03
WFPS	-.07	-.06			< 1
FWPS	.14	.11			1.13
SS (Supervisor)	.26	.13			1.35
SS(Colleagues)	.18	.07			< 1
SS (Friends/Family)	.11	.06			< 1
Autonomy	.08	.02	.24	.08	< 1

(Table 1 continued on next page)

Step 4					
Gender	-2.00	-.05			< 1
Age	.02	.02			< 1
Working Status	-1.42	-.09			-1.07
Trait anxiety	-.19	-.24			-2.35*
WFC	.01	.01			< 1
FWC	-.27	-.17			-1.89
WFPS	-.05	-.04			< 1
FWPS	.08	.06			< 1
SS (Supervisor)	.23	.11			1.18
SS (Colleagues)	.13	.05			< 1
SS (Friends/Family)	.14	.07			< 1
Autonomy	.06	.02			< 1
EL (Feigned Positive Emotion Expression)	.04	.02			< 1
EL (Negative Emotion Suppression)	.04	.02			< 1
EW (Companionship)	.27	.19			1.84
EW (Regulation)	-1.0	.17	.26	.02	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 =.26, Adj. R^2 =.17. Step 1. F(3,147) = , p > .05. Step 2. F (4,147) = , p < .0001. Step 3. F(12,147) = , p < .0001. Step 4. F(16,147) = , p <.0001. N= 148.

Table 2

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Stress

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	4.08	.10			1.23
Age	-.01	-.01			< 1
Working Status	-1.49	-.09	.02	.02	-1.08
Step 2					
Gender	2.67	.07			< 1
Age	.00	.00			< 1
Working Status	-1.32	-.08			-1.03
Trait anxiety	.32	.39	.17	.15	5.16***
Step 3					
Gender	.05	.00			< 1
Age	-.02	-.02			< 1
Working Status	-1.49	-.09			-1.18
Trait anxiety	.25	.30			3.25**
WFC	.40	.30			3.33**
FWC	.11	.07			< 1
WFPS	-.05	-.04			< 1
FWPS	.16	.12			1.31
SS (Supervisor)	-.15	-.07			< 1
SS (Colleagues)	.25	.10			1.02
SS (Friends/Family)	-.01	-.01			< 1
Autonomy	.54	.16	.17	.15	1.99*
Step 4					
Gender	-.62	-.02			< 1

(Table 2 continued on next page)

Age	-.02	-.02			< 1
Working Status	-.98	-.06			< 1
Trait anxiety	.15	.18			2.01*
WFC	.38	.28			3.28*
FWC	.06	.03			< 1
WFPS	-.09	-.08			< 1
FWPS	.26	.19			2.19*
SS (Supervisor)	-.08	-.04			< 1
SS (Colleagues)	.34	.14			1.45
SS (Friends/Family)	-.12	-.06			< 1
Autonomy	.54	.16			2.08*
EL (Feigned Positive Emotion Expression)	-.10	-.03			< 1
EL (Negative Emotion Suppression)	.75	.29			3.42**
EW (Companionship)	-.37	-.25			-2.75*
EW (Regulation)	.12	.07	.39	.10	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 =.39, Adj. R^2 =.31. Step 1. F(3,151) = .79, p >.05. Step 2. F(4, 151) = 7.36, p < .05. Step 3. F(12, 151) = 4.69, p < .0001. Step 4. F(16, 151) = 5.28, p<.0001. N=152.

Table 3

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Personal Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	2.93	.16			1.87
Age	.03	.06			< 1
Working Status	-.34	-.04	.02	.02	< 1
Step 2					
Gender	1.83	.10			1.53
Age	.04	.09			1.41
Working Status	-.20	-.03			-.40
Trait anxiety	.25	.65	.44	.41	10.34***
Step 3					
Gender	.59	.03			< 1
Age	.02	.04			< 1
Working Status	-.20	-.03			< 1
Trait anxiety	.17	.44			6.29***
WFC	.27	.42			6.17***
FWC	.02	.02			< 1
WFPS	.01	.01			< 1
FWPS	-.01	-.01			< 1
SS (Supervisor)	-.05	-.05			< 1
SS (Colleagues)	-.07	-.06			< 1
SS (Friends/Family)	-.02	-.02			< 1
Autonomy	.13	.08	.59	.15	1.32
Step 4					
Gender	.64	.03			< 1
Age	.01	.01			< 1

(Table 3 continued on next page)

Working Status	-.25	-.03			< 1
Trait anxiety	.17	.43			5.80***
WFC	.26	.41			5.97***
FWC	.01	.02			< 1
WFPS	.01	.02			< 1
FWPS	-.01	-.01			< 1
SS (Supervisor)	-.05	-.05			< 1
SS (Colleagues)	-.06	-.05			< 1
SS (Friends/Family)	-.03	-.04			< 1
Autonomy	.10	.06			1.01
EL (Feigned Positive Emotion Expression)	-.12	-.09			-1.34
EL (Negative Emotion Suppression)	.11	.09			1.27
EW (Companionship)	.02	.02			< 1
EW (Regulation)	.01	.01	.60	.01	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 =.60, Adj. R^2 =.55. Step 1. F(3, 151) =1.24, p >.05. Step 2 F (4, 151) =28.33, p < .0001. Step 3 F(12, 151) =16.48, p < .0001. Step 4. F(16, 151) =12.45, p<.0001. N=152

Table 4

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Work-related Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	4.46	.23			2.77*
Age	-.01	-.01			< 1
Working Status	-.87	-.11	.06	.06	-1.29
Step 2					
Gender	3.50	.18			2.59**
Age	.01	.01			< 1
Working Status	-.75	-.09			-1.33
Trait anxiety	.22	.54	.34	.29	7.98***
Step 3					
Gender	1.92	.10			1.66
Age	-.02	-.04			< 1
Working Status	-.84	-.10			-1.75
Trait anxiety	.14	.34			4.71***
WFC	.33	.49			7.16***
FWC	.05	.06			< 1
WFPS	-.00	-.01			< 1
FWPS	-.03	-.04			< 1
SS (Supervisor)	-.09	-.09			-1.31
SS (Colleagues)	-.05	-.04			< 1
SS (Friends/Family)	.06	.07			1.01
Autonomy	.22	.13	.58	.24	2.14*
Step 4					

(Table 4 continued on next page)

Gender	2.04	.10			1.75
Age	-.03	-.06			< 1
Working Status	-.86	-.11			-1.78
Trait anxiety	.12	.30			4.02***
WFC	.31	.47			6.85***
FWC	.05	.04			< 1
WFPS	-.01	-.01			< 1
FWPS	-.03	-.04			< 1
SS (Supervisor)	-.09	-.09			-1.33
SS (Colleagues)	-.05	-.04			< 1
SS (Friends/Family)	.05	.05			< 1
Autonomy	.18	.11			1.75
EL (Feigned Positive Emotion Expression)	-.07	-.05			< 1
EL (Negative Emotion Suppression)	.18	.14			2.09*
EW (Companionship)	.01	.01			< 1
EW (Regulation)	.05	.06	.60	.01	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 =.60, Adj. R^2 =.55. Step 1. F(3, 151) = 2.87, p <.05 Step 2 F (4, 151) =,18.98 p < .0001. Step 3 F(12, 151) =15.74, p < .0001. Step 4. F(16, 151) = 12.59, p<.0001. N=152.

Table 5

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Patient-related Burnout

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	1.90	.09			1.02
Age	-.01	-.02			< 1
Working Status	-.85	-.09	.01	.01	-1.10
Step 2					
Gender	.97	.04			< 1
Age	-.00	-.00			< 1
Working Status	-.74	-.08			-1.07
Trait anxiety	.21	.46	.22	.21	6.29***
Step 3					
Gender	1.23	.06			< 1
Age	-.01	-.01			< 1
Working Status	-.20	-.03			< 1
Trait anxiety	.17	.44			6.29***
WFC	.27	.42			6.17***
FWC	.02	.02			< 1
WFPS	.01	.01			< 1
FWPS	-.10	-.14			-1.52
SS (Supervisor)	.01	.01			< 1
SS (Colleagues)	.09	.06			< 1
SS (Friends/Family)	-.06	-.06			< 1
Autonomy	.16	.08	.29	.06	1.03
Step 4					
Gender	.90	.04			< 1

(Table 5 continued on next page)

Age	.00	.01			< 1
Working Status	-.98	-.11			-1.37
Trait anxiety	.18	.40			4.13***
WFC	-.02	-.03			< 1
FWC	.20	.21			2.51**
WFPS	-.05	-.07			< 1
FWPS	-.06	-.08			< 1
SS (Supervisor)	.04	.03			< 1
SS (Colleagues)	.13	.09			< 1
SS (Friends/Family)	-.09	-.08			1.21
Autonomy	.19	.10			1.01
EL (Feigned Positive Emotion Expression)	-.01	-.00			< 1
EL (Negative Emotion Suppression)	.13	.09			1.02
EW (Companionship)	-.16	-.20			-2.04*
EW (Regulation)	.01	.01	.32	.03	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 = .32, Adj. $R^{2 =}$ .24. Step 1. F(3, 151) =15.18, p >.05. Step 2 F (4, 151) =4.66, p < .0001. Step 3 F(12, 151) =10.54, p < .0001. Step 4. F(16.151) =3.96, p< .0001. N=152

Table 6

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Job Satisfaction

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	-.57	-.09			< 1
Age	.00	.01			< 1
Working Status	.02	.01	.01	.01	< 1
Step 2					
Gender	-.45	-.07			< 1
Age	-.00	-.02			< 1
Working Status	.02	.01			< 1
Trait anxiety	-.06	-.41	.18	.17	-5.39***
Step 3					
Gender	-.41	-.06			< 1
Age	.01	.04			< 1
Working Status	.13	.05			< 1
Trait anxiety	-.03	-.24			-2.66**
WFC	-.04	-.20			-2.18*
FWC	-.04	-.14			-1.60
WFPS	.01	.07			< 1
FWPS	.03	.16			1.72
SS (Supervisor)	.05	.15			1.63
SS (Colleagues)	.02	.05			< 1
SS (Friends/Family)	.01	.02			< 1
Autonomy	-.03	-.05	.32	.14	< 1
Step 4					
Gender	-.46	-.07			< 1
Age	.01	.05			< 1

(Table 6 continued on next page)

Working Status	.12	.05			< 1
Trait anxiety	-.03	-.21			-2.19*
WFC	-.04	-18			-2.00*
FWC	-.03	-12			-1.39
WFPS	.02	.08			< 1
FWPS	.03	.15			1.64
SS (Supervisor)	.05	.15			1.61
SS (Colleagues)	.03	.06			< 1
SS (Friends/Family)	.01	.03			< 1
Autonomy	-.01	-.02			< 1
EL (Feigned Positive Emotion Expression)	.02	.04			< 1
EL (Negative Emotion Suppression)	-.04	-.10			-1.07
EW (Companionship)	.00	.01			< 1
EW (Regulation)	-.03	-.11	.34	.02	-1.16

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 = .34, Adj. R^2 = .26. Step 1. F(3, 145) =.35, p >.05. Step 2 F (4, 145) = 7.59, p < .0001. Step 3 F(12, 145) =5.18, p < .0001. Step 4. F(16, 145) =4.14 , p< .0001. N=146.

Table 7

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Affective Commitment

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	-.29	-.01			< 1
Age	.05	.10			1.23
Working Status	-.74	-.09	.02	.02	-1.06
Step 2					
Gender	.23	.01			< 1
Age	.04	.09			1.13
Working Status	-.81	-.10			-1.19
Trait anxiety	-.12	-.28	.10	.08	-3.59***
Step 3					
Gender	-.05	-.00			< 1
Age	.05	.10			1.33
Working Status	-.47	-.06			< 1
Trait anxiety	-.06	-.13			-1.37
WFC	-.06	-.09			< 1
FWC	-.04	-.04			< 1
WFPS	.02	.04			< 1
FWPS	.01	.02			< 1
SS (Supervisor)	.29	.27			2.92**
SS (Colleagues)	-.03	-.02			< 1
SS (Friends/Family)	.00	.00			< 1
Autonomy	.33	.19	.23	.13	2.28*
Step 4					
Gender	-.18	-.01			< 1

(Table 7 continued on next page)

Age	.04	.08			1.03
Working Status	-.57	-.07			< 1
Trait anxiety	-.05	-.11			-1.11
WFC	-.05	-.09			< 1
FWC	-.03	-.03			< 1
WFPS	.02	.04			< 1
FWPS	.00	.00			< 1
SS (Supervisor)	.28	.27			2.85**
SS (Colleagues)	-.00	.00			< 1
SS (Friends/Family)	-.01	-.01			< 1
Autonomy	.34	.19			2.30*
EL (Feigned Positive Emotion Expression)	-.07	-.05			< 1
EL (Negative Emotion Suppression)	.03	.02			< 1
EW (Companionship)	.08	.10			< 1
EW (Regulation)	-.11	-.13	.24	.01	-1.25

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = $p < .05$, ** = $p < .01$, *** = $p < .0001$. Overall: $R^2 = .24$, Adj. $R^2 = .15$. Step 1. $F(3, 151) = .88$, $p > .05$. Step 2 $F(4, 151) = 3.94$, $p < .0001$. Step 3 $F(12, 151) = 3.48$, $p < .0001$. Step 4. $F(16,151) = 2.69$, $p < .0001$. N=152

Table 8

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Intention to Leave

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	.52	.04			< 1
Age	-.03	-.08			-1.02
Working Status	-.51	-.09	.02	.02	-1.06
Step 2					
Gender	.13	.01			< 1
Age	-.02	-.07			< 1
Working Status	-.46	-.08			-1.01
Trait anxiety	.09	.32	.12	.10	4.04*
Step 3					
Gender	-.17	-.01			< 1
Age	-.02	-.06			< 1
Working Status	-.80	-.14			-1.80
Trait anxiety	.06	.20			2.08*
WFC	.06	.13			1.41
FWC	.16	.27			3.17**
WFPS	.03	.08			< 1
FWPS	-.06	-.13			-1.37
SS (Supervisor)	-.07	-.10			-1.09
SS (Colleagues)	-.09	-.11			-1.05
SS (Friends/Family)	.10	.15			1.70
Autonomy	.25	.13	.21	.11	< 1
Step 4					

(Table 8 continued on next page)

Gender	-.36	-.03			< 1
Age	-.03	-.08			-1.05
Working Status	-.76	-.13			-1.72
Trait anxiety	.03	.12			1.21
WFC	.05	.11			1.25
FWC	.14	.25			2.96**
WFPS	.02	.06			< 1
FWPS	-.04	-.09			< 1
SS (Supervisor)	-.06	-.08			< 1
SS (Colleagues)	-.05	-.06			< 1
SS (Friends/Family)	.06	.09			1.01
Autonomy	.02	.02			< 1
EL (Feigned Positive Emotion Expression)	-.12	-.12			-1.37
EL (Negative Emotion Suppression)	.24	.27			3.06**
EW (Companionship)	-.05	-.10			-1.05
EW (Regulation)	-.01	-.01	.31	.06	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 =.31, Adj. R^2 =.23. Step 1. F(3, 151) =.89, p >.05. Step 2 F (4, 151) =4.80, p <.0001. Step 3 F(12, 151) =3.84, p < .0001. Step 4. F(16,151) = 3.75, p<.0001. N=152.

Table 9

Summary of Hierarchical Regression Analysis for Individual Difference and Organisational Variables predicting Self-reported Absenteeism

Variable	B	Beta	R^2	$R^{2\ change}$	t-value
Step 1					
Gender	5.66	.08			< 1
Age	-.11	-.07			< 1
Working Status	.19	.01	.01	.01	< 1
Step 2					
Gender	4.85	.07			< 1
Age	-.09	-.06			< 1
Working Status	.33	.01			< 1
Trait anxiety	.21	.13	.03	.02	1.57
Step 3					
Gender	4.90	.07			< 1
Age	-.04	-.03			< 1
Working Status	-.82	-.03			< 1
Trait anxiety	.30	.20			1.73
WFC	. -.14	-.06			< 1
FWC	.28	.09			< 1
WFPS	-.00	-.00			< 1
FWPS	-.18	-.07			< 1
SS (Supervisor)	-.62	-.16			-1.56
SS (Colleagues)	.78	.17			1.50
SS (Friends/Family)	.37	.10			1.03
Autonomy	-.05	-.01	.08	.05	< 1
Step 4					
Gender	4.55	.07			< 1

(Table 9 continued on next page)

Age	-.03	-.02			< 1
Working Status	-.36	-.01			< 1
Trait anxiety	.26	.17			1.44
WFC	-1.55	-.06			< 1
FWC	.28	.09			< 1
WFPS	-.04	-.02			< 1
FWPS	-.13	-.05			< 1
SS (Supervisor)	-.59	-.15			-1.45
SS (Colleagues)	.75	.16.			1.36
SS (Friends/Family)	.40	.12			1.08
Autonomy	.06	.01			< 1
EL (Feigned Positive Emotion Expression)	.53	.10			1.00
EL (Negative Emotion Suppression)	.09	.02			< 1
EW (Companionship)	-.18	-.07			< 1
EW (Regulation)	.05	.02	.09	.01	< 1

Note: WFC = Work-Family Conflict, FWC = Family-Work Conflict, WFPS = Work-Family Positive Spillover, FWPS = Family-Work Positive Spillover, SS = Social Support, EL = Emotion Labour, EW = Emotion Work. * = p < .05, ** = p< .01, *** = p<.0001. Overall: R^2 = .09, Adj. R^2 =-.03. Step 1. F(3, 139) =.60, p >.05. Step 2 F (4, 139) = 1.07, p >.05. Step 3 F(12, 139) =.91, p > .05. Step 4. F(16,139) = .76, p >.05. N=140.

APPENDIX 6.3

Statistical indexes of overall model fit

Various statistical indexes of overall model fit have been created to measure the degree of fit of over-identified path models (models with more observations than parameters, resulting in less than ideal model fit). According to Kline (2005) the minimal setoff fit indexes that should be reported and interpreted when reporting the results of structural equation modelling analyses include the model chi square, the Steiger-Lind root mean square error of approximation with a 90% confidence interval, comparative fit index and the standardised root mean square residual. If appropriate the author also suggests examining the Akaike information criterion, Bentler-Bonett normed fit index, the expected cross-validation index and the goodness of fit index (not available for path analyses).

Kline (2005) warns that fit indexes have limitations, including (1) knowledge that they measure the average or overall fit of a model, overlooking the possibility that some parts of a model may poorly fit the data in spite of a favourable fix index value, (2) the fact that more than one index needs to be considered to assess model fit, as one index only estimates a particular aspect of model fit, (3) they do not hold theoretical relevance, (4) the predictive power of a model is not assessed via fit indexes, and (5) that the sampling distributions of fix indexes (apart from RMSEA) are unknown, such that interpretive guidelines regarding indexes are recommendations only. An explanation given by Kline (2005) with regard to of the fit indexes reported in this thesis are provided below.

Model Chi-Square

Model chi-square (also known as the likelihood ratio chi-square or the generalised likelihood ratio) is the most basic fit statistic of which the only parameter is its degrees of freedom. The statistic assumes multivariate normality as well as a large sample size, in which it is distributed as a Pearson chi-square statistic with degrees of freedom equal to that of the default (researcher's) model. The null hypothesis is reversed from the common reject-support context whereby rejection of a null hypothesis supports a prescribed theory. The null hypothesis for this statistic assumes perfect fit of the model

in the population and approximates a central chi-square distribution. For a just-identified model (same number of parameters as observations) the value of chi-square is 0 with no degrees of freedom, whereas for an over-identifed model, as chi-square increases, the fit of the model to the data becomes worse.

Limitations of this statistic include an unrealistic hypothesis (presuming a model may reach perfect population fit), sensitivity to size of correlations (resulting in greater differences between observed and predicted correlations), and sample size. To avoid problems associated with large sample size and false rejection of models, a normed chi-square (chi-square value divided by the degrees of freedom), which generally results in a lower chi-square value. Bollen (1989, cited by Kline, 2005) suggests that the normed chi-square does not completely correct for the compromising influence of sample size. However, the χ^2 statistic is consistently reported and is a key feature of the formulas of many other indexes, which may therefore affect the effectiveness of other fit indexes. The model chi-square is often used to compare hierarchical (or nested) models tested on the same data.

Root Mean Square Error of Approximation (RMSEA)

A parsimony-adjusted index (corrects for model complexity), the RMSEA, does not approximate a central chi-square distribution, but a noncentral chi-square distribution with a noncentrality parameter. A null hypothesis is not incorporated, as a model's fit to the data is not assumed to be perfect, but it merely an approximation of true fit. When the estimator is 0 this represents a central chi-square distribution. As the estimator increases, the noncentral distribution is shifted to the right, and the model is more and more misspecified. The statistic is population based, due to the statistic measuring the error of approximation (the lack of fit of the researcher's model of the population covariance matrix). It is not affected by sample size, however imprecise or mixed results regarding fit are more likely to occur in smaller samples.

Comparative Fit Index

The Comparative Fit Index is referred to as an incremental or comparative fit index, and assesses improvement in fit between a baseline (null model, or compared nested model). This statistic has been criticised because the null model, which assumes zero

population covariances among all observed variables, often holds a larger chi-square value compared to a researcher's model. It is also limited by the reality that the assumption of zero covariances is scientifically implausible in applications of structural equation modelling. However, the Amos 5 program (Arbuckle, 2003) provide a more realistic direction, whereby covariances of baseline models are set to be equal instead of zero. A strength of the statistic is that it does not assume perfect population fit of a predicted model.

Standardised Root Mean Square Residual

Discrepancies between observed and predicted covariance residuals are the focus of the root mean square residual. The standardised root mean square residual is an improvement of the root mean square residual measuring unstandardised variables, as the sample covariance matrix and the predicted covariance matrix are transformed correlation matrices for which the SRMR may measure the mean absolute correlation residual (the difference between observed and predicted correlations).

The Akaike Information Criterion (AIC)

The Akaike Information Criterion is a predictive fit index, indicating the assessment of model fit in hypothetical replication samples mimicking the same sample size and randomly drawn population. It is a parsimony-adjusted index that will demonstrate better fit for simpler models. This criterion is often used to compare non-hierarchical models tested on the same data, where a test statistic cannot be deciphered unless the alternative models are hierarchical. The AIC does not take into account sample size.

Bentler-Bonett Normed Index (NFI), Expected Cross-Validation Index (ECVI), and Goodness-of-Fit Index (GFI)

The NFI, ECVI and GFI are not recommended for use above the former fit indexes due to limitations. The NFI is parsimony-adjusted (corrects for model complexity) and is sample-based. The ECVI is assessed in the same manner as the AIC, and both are population-based. The GFI is an absolute fit index estimating the proportion of variability in the predicted covariance matrix (a proportion of explained variance matrix), and is the first standardised fix index. A GFI value of 1 indicates perfect

model fit, with GFI > .09 indicating good fit and GFI close to zero indicative of poor fit. However GFI values can also reach outside the range of 0-1.0. Table 1 displays a table of recommended fit index values adapted from Table 1 (fit indexes reported by the researcher are listed only), p. 52 of Schermelleh-Engel *et al.* (2003).

Table 1

Recommendations for Model Evaluation: Some rules of Thumb

Fit Measure	Good Fit	Acceptable Fit
χ^2	$0 \leq \chi^2 \leq 2\ df$	$2df < \chi^2 \leq 3\ df$
p value	$.05 < p \leq 1.00$	$.01 \leq p \leq .05$
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
RMSEA	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
Confidence interval (CI)	close to *RMSEA*, left boundary of CI = .00	close to *RMSEA*
SRMR	$0 \leq SRMR \leq .05$	$.05 < SRMR \leq .10$
NFI	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$
CFI	$.97 \leq CFI \leq 1.00$	$.95 \leq CFI < .97$ [Or Roughly .90 and above (Hu & Bentler, 1999)].
GFI	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI \leq .95$
AIC	smaller than *AIC* for comparison model	
ECVI	smaller than *ECVI* for comparison model	

Note. *AGFI* = Adjusted Goodness-of-Fit Index, *AIC* = Akaike Information Criterion, *CFI* = Comparative Fit index, *ECVI = Expected Cross Validation Index*, *GFI* = Goodness-of-Fit Index, *NFI* = Normed Fix Index, *RMSEA* = Root Mean Square Error of Approximation, *SRMR* = Standardised Root Mean Square Residual.

APPENDIX 6.4

Inter-rater reliability of the thematic analyses

Prevalence of coded responses for Coders 1 and 2 for the question that initiated overall comments

Coder 1 ——————————————————→

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8.1	Theme 8.2	Theme 8.3	Total
Theme 1	32				1						33
Theme 2		4									4
Theme 3			7								7
Theme 4				8							8
Theme 5					5						5
Theme 6						14					14
Theme 7							15				15
Theme 8.1						1		11			12
Theme 8.2				1			1	2	10		14
Theme 8.3							1	1		7	9
Total	32	4	7	9	6	15	17	14	10	7	121

NB. Sum of diagonal cells = 113

Coder 2 ↑

$$K = \frac{\Sigma a - \Sigma ef}{N - \Sigma ef}$$

$$K = \frac{113-16.93}{121-16.93} = \frac{96.07}{104.07} = 0.92$$

Prevalence of coded themes for coders 1 and 2 for Scenario 1, Question 1

Coder 1 →

	Theme 1.1	Theme 1.2	Theme 2.1	Theme 2.2	Theme 3.1	Theme 3.2	Total
Theme 1.1	34						34
Theme 1.2		3					3
Theme 2.1			56				56
Theme 2.2	1		2	23			26
Theme 3.1	2		1		7		10
Theme 3.2			14	1	1	15	31
Total	37	3	73	24	8	15	160

NB. Sum of diagonal cells = 138

↑ Coder 2

$$K = \frac{\Sigma a - \Sigma ef}{N - \Sigma ef}$$

$$K = \frac{138-51.71}{160-51.71} = \frac{86.29}{108.29} = 0.80.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 1, Question 2

Coder 1 →

	Theme 1.1	Theme 1.2	Theme 2	Total
Theme 1.1	49	1		50
Theme 1.2	1	64		65
Theme 2		3	23	26
Total	50	68	23	141

NB. Sum of diagonal cells = 136 ↑ Coder 2

$$K = \frac{136-55.28}{141-55.28} = \frac{80.72}{85.72} = 0.94.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 1, Question 3

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Total
Theme 1	50					50
Theme 2		19				19
Theme 3	1	4	18		5	28
Theme 4		1		11		12
Theme 5		2			15	17
Total	51	26	18	11	20	126

NB. Sum of diagonal cells = 113 ↑ Coder 2

$$K = \frac{113-35.13}{128-35.13} = \frac{77.87}{92.87} = 0.84.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 2, Question 1

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Total
Theme 1	16		11	1	19
Theme 2	1	68	1		70
Theme 3	3	2	33	2	40
Theme 4	1			19	20
Total	21	70	36	22	149

NB. Sum of diagonal cells = 136

↑ Coder 2

$$K = \frac{136-52.79}{149-52.79} = \frac{83.21}{96.21} = 0.86.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 2, Question 2

Coder 1 →

	Theme 1	Theme 2	Theme 3	Total
Theme 1	86			86
Theme 2	1	18		19
Theme 3			10	10
Total	87	18	10	115

NB. Sum of diagonal cells = 114

↑ Coder 2

$$K = \frac{114-69.51}{115-69.51} = \frac{44.49}{45.49} = 0.98.$$

Prevalence of coded responses for Coders 1 and 2 for Scenario 2, Question 3

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4.1	Theme 4.2	Theme 5	Total
Theme 1	8						8
Theme 2		8					9
Theme 3			2				3
Theme 4				53			56
Theme 5					24		24
Theme 6						8	8
Total	8	9	2	54	24	11	108

↑ Coder 2

NB. Sum of diagonal cells = 103

$$K = \frac{133-28.87}{138-28.87} = \frac{104.13}{109.13} = 0.95.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 3, Question 1

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Total
Theme 1	68				68
Theme 2	3	24	1	1	29
Theme 3	1		22	1	24
Theme 4	8	1		21	30
Total	80	25	23	23	151

↑ Coder 2

NB. Sum of diagonal cells = 135

$$K = \frac{135-54.87}{151-54.87} = \frac{80.14}{96.13} = 0.83.$$

Prevalence for coded themes for Coders 1 and 2 for Scenario 3, Question 2

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Total
Theme 1	43				43
Theme 2		24	1		25
Theme 3			52		52
Theme 4				9	9
Total	43	24	53	9	129

NB. Sum of diagonal cells = 128

Coder 2 ↑

$$K = \frac{128-49.29}{129.49.29} = \frac{86.71}{87.71} = 0.99.$$

Prevalence of coded themes for Coders 1 and 2 for Scenario 3, Question 3

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8.1	Theme 8.2	Theme 9.1	Theme 9.2	Total
Theme 1	4	1				1						6
Theme 2		4	2			2					1	9
Theme 3			6					1				7
Theme 4				12								12
Theme 5					15					2	1	18
Theme 6			1			9						10
Theme 7							5					5
Theme 8.1		1				1		11				13
Theme 8.2									2			2
Theme 9.1										6		6
Theme 9.2											12	12
Total	4	6	9	12	15	13	5	12	2	8	14	100

↑ Coder 2

NB. Sum of diagonal cells = 86

$$K = \frac{86-10.61}{100-10.61} = \frac{75.39}{89.39} = 0.84.$$

APPENDIX 7.1

Study 3: Information sheet for participants

(Name of organisation removed)

INFORMATION FOR PARTICIPANTS

Thank you for your interest in our study: **Current availability and practice of interventions for nursing staff of South Australian metropolitan hospitals.** This study is being conducted within the Department of Psychology, and (name of EAP removed) Workplace Consulting. Your participation is voluntary.

Background, Aim and Possible Benefits of the study:

Work requirements (or demands) and work conditions may individually or together contribute to outcomes of work stress or work satisfaction. Common job demands reported for nurses include a high workload, emotional demands, work-home conflict (where demands from work affect family life and vice versa), and exposure to traumatic events. A particular feature of nursing which makes it a challenging profession is the requirement to undertake a substantial proportion of emotion work. Emotion work includes expressing positive and negative emotions to help others deal with their own emotions, including patients and co-workers, such as being friendly or sympathetic as part of a caring relationship.

Over the past two years, we have conducted two quantitative questionnaire based projects with metropolitan public and private nurses and managers.
In light of the high workload of the nursing profession due to the current shortage of nurses in South Australia, the broad research aims are to analyse aspects of nursing that contribute to nurses' work satisfaction and to identify risk factors for the development of the following:

- burnout and low job satisfaction – find causes and suggest solutions to improve nurse well being individually, and improve productivity for the nursing profession as a whole;
- staff turnover – identify triggers and propose methods for retaining staff; and
- workers Compensation Claims – identify early symptoms for these occurrences, and suggest improvements.

Given the aims to investigate the topical issues surrounding workplace stress in nurses, we also have a keen interest in identifying the current available employee assistance

program services and interventions available to nurses through the largest and most reputable EAP provider of its kind – (name of EAP removed).

We are confident that the results of the project will provide insightful information regarding the kind of EAP support available to nurses, when required, and what kinds of interventions are most effective for nurses.

Participant Information:

Consultants at (name of EAP removed) Workplace Consulting are invited to participate in this study. As a volunteer taking part in this study you will be asked to complete a 20-30 minute interview and will be reimbursed for your time. A copy of the questions that are to be asked are attached.

All of the information gathered by the researchers will be confidential and will only be made available to the researchers. All data will be collected anonymously and coded and no employee will be identified in the reporting of results/feedback provided to (name of EAP removed), unless they express that they would like this to be the case – to 'own their story' or in order to promote (name of EAP removed). Therefore, unless otherwise, such information will not be disclosed when providing feedback to participants in order to maintain anonymity. Each participant will be offered their own individual transcript once data collection is finalised, although as stated, identifying information provided in individual transcripts will not be included in reporting. Unless otherwise preferred, (name of EAP removed) will not be identified in published reports as the participating EAP provider in this research.

Although confidentiality and anonymity will be maintained, if for any reason you do not consent to respond to certain questions, you are free to skip to the next question at any time.

In order for analysis to be formulated based on participants' own words, rather than based on the interviewer's interpretation and interview notes, permission to tape record interviews will be sought for each participant. However, participants may feel free to stop the tape recorder at any time should they wish for particular information be excluded from the recording. The tapes used to record interviews will be destroyed when they are no longer of use.

This information sheet is to remain your property and you will be free to withdraw from the study at any time. A summary of the results will be provided to all participants. Feel free to contact us to ask questions at any time.

Further Information:

Comments/Queries:

If you require any further information concerning the project, please contact:

Sandra Pisaniello
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Attention: Sandra Pisaniello
Nursing Job Satisfaction and Well Being study
Department of Psychology
University of Adelaide
Adelaide, South Australia 5005.

Independent contact:

If you wish to speak to someone not directly involved in the study, or have any complaints, please contact Dr. Nick Burns, convenor of the University of Adelaide's School of Psychology Human Ethics Subcommittee on (08) 8303 3965 or e-mail: nick.burns@psychology.adelaide.edu.au

APPENDIX 7.2

Structured Interview Questions

1. What is your role at ACCESS-OCAR with regard to:

   - Time spent with clients?
   - Supervisory and management roles?
   - Committee, policy work, or meeting with outside stakeholders?

2. As nursing staff can be referred to ACCESS-OCAR through the ANF for assistance, how many nursing staff do you typically see per year?

2a. How many nursing managers do you see per year?

3. What are the issues that nursing staff commonly see ACCESS-OCAR about?

4. What do you see as the causes of burnout for nurses?

5. What about the contributors to job satisfaction?

6. From your experience, what percentage of nurses who approach ACCESS-OCAR remain in the nursing profession (if known)?

7. In your view, what could be improved to maximise more desirable work arrangements for the nursing profession?

8. What is your opinion of the hospital system versus other types of workplaces for nurses?

9. Suppose I were a nurse who came to you to discuss a problem with management (for e.g., with rostering). How would you approach the situation?

10. How would you go about providing feedback to managers in this case?

11. What treatments or interventions are currently available for nurses that are provided by ACCESS-OCAR for….

Issue 1 …..
Issue 2 …..

12. In terms of effectiveness, how effective are individual level interventions for nurses?

13. What organisational level interventions have you been involved in?

13a. How effective are organisational level interventions for nurses (if known)?

13b. What kinds of interventions (individual or organisational level) have been most effective for nurses?

14. How do nursing staff compare with staff of other professions in terms of issues presented (if known)?

15. Is there anything else you would like to tell me about/add; Are there any important questions I have not asked that I could have?

APPENDIX 8.1

Responses coded under the themes derived from Study 3

Meta-theme 1 - The Role of the EAP

Theme 1

Meat in the sandwich – Gaining credibility and trust from both management and nursing staff on the floor

Examples of statements made by two of the internal agency consultants are:

(Internal) C1: *'We're highly respected too, and we've developed it, it wasn't always like this….The fact that we can tap in, you can't just go over to (name omitted to protect participants) and say I need your help….and I could because we have a good relationship with him and you wouldn't walk into his door unless you had a serious issue, you wouldn't bother a man of that calibre, he's busy looking after whoever he's looking after. I would do the same to the CEO if I thought it was worthwhile.…..'*

C1: '*You see more nurses than anyone else, but of course that's because there are more nurses in this organisation than anyone else, so we see more nurses … then within that we see a very high proportion of our nursing in the hospital. People are known to us, we have a good relationship with the managers and the clinical nurse consultants, we've done a lot of education sessions, we know all the nursing directors on a first name basis, even the nursing directors wonder over here come and have a coffee or tea and have a yak and a moan and a cry sometimes, they need somewhere to go because the place is driving them insane, they also walk people over which is rather nice. I could say there was one nursing director we never saw until…she retired because she had no regard for this service whatsoever, but out of the 6 or them we had relationships with 5. She was frightened by us and what we did.…..*

It took us quite a long time to get into (omitted to protect participants)*, probably about* (omitted to protect participants)*. I mean I was up there a lot and* (omitted to protect participants) *had been up there a lot in that first 10 years, but it's been after that…..they were hard as nails!'*

A statement made by an external EAP consultant was:

(External) C3**:** *'If I had approval* (from the client) *we would provide feedback to managers but we would be very careful about what we said, how we said it, to whom we said it and about who we said it. Sometimes it's over the phone, sometimes it's a meeting and depends on the situation. I guess we are very cautious about that given that it is the management that employ us and we are not there to tell management what they want to hear, but we also have to be careful that we are not taking on information that perhaps is one-sided by a client, so I think there is always the need to be cautious in that way.'*

Theme 2

Meat in the sandwich – Overcoming organisational politics to bring about change

Examples of statements to support this theme from both internal and external consultants are:

(Internal) C2:*' I needed his GP to write referrals, and I spoke to his GP on the phone and yes yes yes, but he never ever wrote the referrals. I sent him to a …….. because I could refer, and then I was able to get 1 referral from his GP that I photocopied and made other appointments for him, and for who he needed to see. There's 1 in South Australia. He actually works for the……., and his books were closed in private practice. I got an appointment for 7 months down the track, that was the 1st appointment, using the fact that I work here and all of that, and I went via the back door and spoke to a colleague of his and crossed out his name in all of the reports and asked if she review it and tell me how worried I should be, and she said I should be very worried and would you mind if I showed this to ….., which is who I'd been trying to get him in to see. He saw him two days later and had made 3 specialist appointments for him and within a week he had seen 3 specialists, but I had to be resourceful, I couldn't get what I wanted.'*

(Internal) C1: *'I think we are very humanist service, and I know it's about cost and budget and blah blah but in the end we've managed to maintain something there where we get something done and I think that's very satisfying to us too.'*

(External) C2:*'It's almost like we're seen to provide these services … and sometimes we are used as the too hard basket, so people will rather refer an employee to us then actually get their hands dirty and deal with it. Now, we're handing it back to them, back in their court, but*

it's a pity that they have to go through that process, and sometimes they are grateful when management intervene themselves. So this is a bit of a concern …and detouring through us…or a bullying situation or whatever rather than actually dealing with it; they'll say the individual has the problem and they need to go and talk with the EAP about it and learn how to deal with it, when they actually should be dealing with the fact that there is bullying in their department…so that concerns us at times when they are detouring and deflecting through the EAP rather than dealing with it directly.'

(External) C2: *'I think sometimes as times we get frustrated because we can see the bigger picture and we can see people getting caught up in the system, and we would like to have more of an impact on an organisational level, and sometimes we have an opportunity to do that.'*

Theme 3

<u>The go between</u>

Examples of comments provided by consultants include:

<u>In discussing the services consultants provide (internal):</u>

C1: '*Well it's counselling, and within counselling you have a range of frameworks and a range of psychological interventions that you are going to apply to whatever the problem is that you are dealing with.'*

C2: '*Or we might be writing a letter supporting someone to have leave without pay, and if they are not able to provide a reason, our support won't be asked by so we can do that.'*

'Apart from doing the counselling, we are doing education, we are doing advocacy, etc.'

<u>In discussing encouraging communication between parties (internal):</u>

'I've just had a nurse bawl into tears and I think I've said the wrong thing'. 'Well it was because I was feeling this' (comment made by a nurse manager) *and then we say 'Well, let her know that you were having an off day and the cat died and you didn't mean to jump down her throat but blah blah…'*

'… and we've actually been able to talk to a lot of wards and because I know we're focusing on nursing today and say 'How's your CNC?' 'Have you ever told them this?' 'Nah' (comment from nurse) *'Well how are they going to know this?' 'Well they should know, they are a CNC'* (comment from nurse) *and we've had a lot of…'*

C2: '*mind reading…'*

C1: **'***yeah, helping out, 'Well how did you know your clinical nurse consultant's not been well lately,' 'We can't disclose what that is' 'no' ' well you're busy giving them a hard time.' Sometimes they've done things where the whole team can push on a nurse or a CNC to feeling like they are suicidal, they bully them and scapegoat them out in a unit so badly.'*

C2: *'Do you know what you're doing is bullying?'*

C1: *'No'*

'You know, so we get people to have a look at what that is and they didn't really want that person to invert and damage, they wanted something else happening, so we kinda …..'

C2: '*and give them other options.'*

When discussing conducting mediation (internal):

C1: *'…we don't like doing them. We don't want them.'*

C2: '*We always try to do the less formal, take it back to a lower level so it's a conversation rather than a mediation, take it back to where has it gone wrong, what's the problem and see if they can't go back and fix it themselves at an earlier point.'*

C1: '*mediation is a very formal process.'*

C2: *'and it's down the track.'*

C1: '*It is down the track. Mind you, you get a lot of nurses, managers, clinical nurse consultants who say "I want to book a mediation" and I say it's not likely, and I have people who have said to me in other areas of the hospital "I want you to mediate," and I'll say "I'll look at them, I'll talk to them" and then I will decide if a mediation is appropriate. You see a mediation can be a very inflammatory, a very provocative process; and just to add to what ….is saying, we are the informal branch in this hospital, ….so although we do a fair amount of organisational psychology matters, a lot of organisational management stuff, we have skills in conflict resolution and Myer-Briggs and all the things that would help you do that stuff, what we really are is in lots of ways empowering the managers and people to do that it themselves or the people to do it themselves without going through all that…. they'll say 'we're thinking of reporting those nurses to the nursing board. You know, maybe you could just talk to them and see how it is….If you go down the road of performance management or something to do with HR or industrial matters or drug and alcohol and the nurse's board, you've already involved law of some description and that makes it much harder to then step backwards….sometimes people don't like each other and we have found that really hard to get nursing to understand, mediation will not make people like each other.'*

When discussing the agency working with management:

C1: '…..*there used to be 20-30 yrs ago a sense that counselling services in organisations were anti-management, and there are different frameworks and we're very well aware of that corporate level… but you actually do need to help management, if you are going to be successful you have to work with management and you have to help them.'*

In discussing providing feedback to nurses:

(Internal) C2: *'They're not forthcoming and you don't get the positive stuff around here a lot and nurses certainly don't get it a lot. We are trying to advocate more of that, a little feedback goes a long way, but they are slow on the uptake, that will take years, but getting along better.'*

Theme 4

Nurse early exit prevention

Examples of statements made by internal and external agency consultants included:

When talking about graduate nurses:

(Internal) C2: '*With hospital based training in the first 3 months you have a drop out rate when new nurses hit the wards for the first time, those who realise I can't do this or it's revolting left, and those who stayed most of those finished their training and continued working. That happens with the university training in that first year, they're 3 years and $10,000 down the drain and they don't feel they same the same options….*

'Because the hours they do on the ward are so low, it doesn't give them a sense of what it's like, it's very unpleasant. Wounds and burns can be quite …you never get that smell our of your head, and we have dead people!

(External) C2: *'Regarding rostering, I've talked more with the graduate nurse coordinator then the program coordinator because I think that whether it's perception or not, it often seems that the last on gets the worse shifts at times, and sometimes that can be the last thing they need when they are struggling anyway to keep their head above water is to also have revolting shifts on top of that. Now that might be a perception as I say, but certainly the graduate nurses often believe that, that they get the less desirable shifts and that does overload them even more, so sometimes I will communicate that back to the coordinators that you need to be mindful of this and need to be talking with the people. I tend to go through them rather than directly through management.*

In the sessions I have done with nurses I tend to talk with them about how can they actually signal their need for support and what strategies have they used. For example, some of them are very clear about wearing their badges to try and signal that they are new chums, others try to pretend that they aren't new to blend in. We've talked about the advantages of reminding people at what level you are at because assumptions are often made and you are given orders and you need to be assertive enough and self-protective to say I don't know that, and I think

the group tends to support members much better in terms of those sort of strategies, so I encourage that for the group rather than me just teaching them that.'

When discussing nurse exit:

(External) C3: *'I think often the ones that don't stay are the ones that perhaps don't come through the system at all; I suspect if they don't get support or don't attempt change will leave, whereas I would say a lot of the people that we see end up staying in the system, whether it's the manage it to get a transfer or engage in some other negotiations or even just personal development, end up staying.'*

Meta-theme 2 - The wounded healer (Personal issues in nurses)

Theme 5

Life experiences

Examples of statements made by internal EAP consultants to support the fifth theme are:

'People are drawn to nursing for very unusual sets of reasons, and so we do get quite a high proportion of abused and assaulted women across the nursing fraternity; we get a fair amount of domestic violence and adult survivors child sexual abuse; people who have had awful and ugly things happen in their family life and that they've chosen nursing to make good, either someone died of cancer in their family or they were on a boat and everyone got burnt and they lived, it's those kind of stories for why people chose nursing; but there is quite a lot of vulnerability in nursing. There is also different stress levels amongst the professional groups, there are more smokers amongst nursing than there is in some other groups, certainly in the younger groups, but there are still left overs in the 50 and 60s group; there is a lot of obesity.'

C2: '*They are not good at looking after themselves.'*

C1: *'A lot of that because they may have come from families with say 7 kids and they were devoted to looking after the family, might have been the oldest child.'*
C2: *'There was never permission to look after themselves, that was selfish.'*
C1: *'There were a whole lot of other groups, say from 20 years ago that chose nursing because their family wouldn't let them do anything else, for instance they weren't allowed to go to university, they wanted to be doctors, could have been doctors, but they chose nursing, so it is an interesting group with some of those things underlying, so then when you assaulted by a patient or someone was attacked in a lift, you're not only dealing with that incident but with some other ugly incident. We've not had a lot of drug problems amongst nurses, there's some but worse for doctors…There is a the problem though that sometimes they pick inappropriate men, their choices of husbands, partners, boyfriends, they're boundaries are not quite right and that's tricky with dealing with some patients, so some of the conflicts and complexities that happen to the stressors of nurses are a lot of those sort of things, and they won't answer that sort of stuff in the questionnaire you've got, you'll get the rosters, and 'my nurse manager hates me.'*

C2: *'Some really senior people who are real scary Marys will have relationships where they are so subservient to the point of being emotionally abused and working within ridiculous constraints…abusive relationships are not uncommon.'*
'…there were a few vulnerability factors about nursing that makes them a little different. You're not going to find… to date I haven't found too many accountants that have a history of child sexual abuse in proportion to nursing. It's not that it isn't going to happen…'
C3: *'It's left them…'*

C1: *'…it's just come to us over the years. I mean we've got evidence but not hard evidence. And about pleasing, there is an accommodating pleasing there and they have a tendency...'*
C3: *'I'm selfish.'*

C1: *'yeah, and that's the other thing, there is a lot of co-dependent stuff with alcohol, related to parents or brothers or siblings or something – its big…*
I can think of two brilliant nurses who have major issues that they manage remarkably well... They've got addiction issues themselves, their family, well one nurse was abused by her grandfather sexually, and going well and she's sober and all those things and her mother had an addiction of some quality and her brother did drugs, and here she is a confident registered nurse in this hospital, but the profile, her history is crap.'

C2: '*but also she is trained in co-dependency, so when she has issues at work she behaves like a co-dependent, and there are 20 basic rules of co-dependency can't remember them all …1) never go outside of the family to talk about issues, so they talk amongst themselves, so they don't give feedback or talk to anyone else, they don't see it as feedback, it's braking the rules, and they will be punished.'*
C1: '*Stay invisible… sorry, just thinking what they were…'*

C2: '*If someone comes around you pretend everything's ok, nurses do pretend which is why if they believe the numbers are low, they won't say anything, they are trained, they're preconditioned, so if they've grown up on co-dependency they bring that model to the workplace. Now, if they're managers, they make enormous complaints about the young people, young nurses that …'*
C1: "*'they speak up,' impotent."*

C2: *'They say no, can you believe they say no?' 'They actually say no, and they voice opinions, I mean who the hell do they think they are?'*
C3: *' complain…'*

Theme 6

Personal issues

Examples of statements made by the consultants include:

(Internal) C1: *'If you think of* [the hospital] *as* [a location in South Australia], *you're going to get all the range of everything you see in any town in here, so there's accidents, people's partners die at work or fall down a mine, then get burnt, they get or partner diagnosed with something ugly, their colleagues and they've had to nurse their colleagues, or their child has arrived here from a rave party and dead on ecstasy. So, there is all of what happens to any family anywhere all happening here on top of all the general things, and all that stuff is general but it is the bread and butter of what it's about. I think if you are depressed and you aren't functioning well and you have a repetitive strain injury of some description or whatever you're not going to be feeling 100% and you can't take time off because you have to support your family, etc.'*

(External) C4: *'Usually it's relationship based, and so often it may be that they are struggling in their relationship and that's impacting on how they are relating to other people at their work as well.' ….*
'*Often people have been injured at work, and so the grief around not being able to return to work, not getting similar shifts that they were before, of having different duties to the ones before; and the lack of finances that those lack of shifts give them.'*

Theme 7

Work-Life Balance

Examples of statements provided by internal and external consultants include:

(Internal) C1: *'and then when there's no time to recoup and regroup, and they haven't had their stress regimen in place, by then they start to crumble in a way that they're melting in front of you so it kind of all falls apart. We have all these lay theories that if the work is really shit and everything's horrid at work you hope to God that your home life's good. Sometimes with people it all falls out and there's nothing left.'*
C2: *'They are in crises when work and home life is shitty – when bad things are happening in both places.'*

(External) C2: *'Sometimes it's overload because they are stretched too thin, and that can be because of personal, work commitments, marriage etc, …also graduate nurses adjusting to shift work and the effect that has on their life, their social life in particular. Quite often they say I am exhausted and I don't have time to do anything outside of work and we are looking at balance, etc. and what are some of the options, that is something that we explore with them' ….'I think that shiftwork does contribute to it and giving out at a high level without having the energy or the time to put back in – replenished energy. That work-balance stuff is often something they have to learn for their own preservation.'*

Theme 8

Self-care

Examples of statements made to explain Theme Eight include:

(Internal) C2: *'The nursing shortage means that there aren't any out there and they accept that and they know there's no point in giving the nurse manager a hard time. What they don't seem to comprehend is if something happened, how they would defend that in the Coroner's Court, because the next step is if you believe it is dangerously low, you need to say to the nurse manager, "I cannot guarantee the safety of the staff and my patients." There is something else they do, they accept it, and because they don't say to the nurse managers the magic phrase, it will be put back on them on the most senior person on the ward in the Coroner's Court and the nurse manager will say I didn't realise because they didn't tell me it was dangerous. Nurses do not realise the risk to themselves that they are acting in good faith.'*

C1: *'But that's also been reinforced a little bit by that 15 yr old, 10 yr old not being assertive, being subservient, putting up and shutting up, but in fact there are many more policies and risk-type management practices that can be brought to bear and to play but of course it will cost the organisation money ultimately. The budget doesn't allow for those kinds of discrepancies, but if someone dies because someone was down the other end …. and we don't have skills.'*

'The fact that we mentioned before about stress regimens and what contributes to burnout. I think there is a lot of square pegs in round holes, so a lot of nurses will be stressed and burn out faster than others because they are not designed to be there in the first place, personality, etc. So if going back to all the education with people and we are getting it right and we are building resilience, in an emergency people self-select to be there and on the whole or (omitted to protect participants), *they are really good at what they do because they are really clear how they need to look after themselves, but there will always be 10-15-20% who don't do it well and they drink too much and they do something else or they've go stoic they don't feel anymore, we get that, that's scary. They need not to be in those areas but they don't recognise it and we've done a lot of work in areas like* (omitted to protect participants) *and we've done a lot of work in* (omitted to protect participants) *to have a look at those things a little earlier so that people know if they need a change of scenery or whatever.'*

(External) C2: '*They often come to me in a bad way because they are just trying to be all things for all people, and also because of the types of people that they are they are also giving to people in their personal life at a high level…they tend to be people that have fairly high expectations of themselves and others, tend to be somewhat perfectionists, and tend to be looking at meeting the needs of others and not for themselves'….*

'People throughout the helping professions tend to help themselves last, so I see a theme throughout and I see a lot of people in the health and welfare sector, they are the helper not the helpee so they find it difficult to ask for help or to acknowledge that they are struggling, so I tend to see people a fair way down the track. I would prefer to see them sooner and they are really in extremes, you can see that, so they need to be encouraged to not leave it so late and to explore avenues for help and to address things sooner and to think that they matter as well, rather than just putting all the priority on other people and being there for other people; but that's more of a selective process that people go through in those professions; they are not good at fighting for their own rights and looking after themselves.'

Meta-Theme 3 - Organisational culture ('Pressure cooker')

Theme 9

<u>The issues:</u>
<u>Environmental issues (Work related issues)</u>

Statements made by the EAP consultants in relation to this theme were:

(Internal) C1: *'The issue of mental health patients and it's a whole other ball game; very inflammatory it's been over the years ….about putting all patients in together, but there is a lot more violence on the wards than there has ever been before.'*
'The other one is having a lot of international doctors. They don't all operate in the same way as we do, they don't often speak English, it's a culture shock, they don't respect women, they certainly don't respect nurses, and they are not into hygiene, so there are a whole pile of issues there that fall on to nurses as work stress; and we've had deaths in this hospital as an absolute direct result of people not understanding each other, and nurses floundering around trying to solve and resolve a matter knowing all the time it could have been different.'
C2: *'It's not a nursing problem.'*

C1: *'It's been a delicate one for them because they get the burden on them and the burden of having to notice that a patient is very sick but they can't administer any drugs and they can't get the Dr. to understand what they are saying …and they are getting into stuff that we don't relate to in this country and also some of our nurses in specialist areas are more qualified than some of the doctors so there that adds to the stress. Nurses have it pretty tough.'*

(External) C3: *'I think lack of funding impacts in a number of ways and probably in terms of facilities and quality of care is often compromised, so that compounds workload and therefore compounds stress; staffing numbers – I think they're quite key. One specific issue in terms of my experience with one particular hospital is harassment and bullying and, interpersonal conflict.'*

(External) C3: **'***I think that the historical behaviour of cliques and bullying and things like that are probably some of the key things. Unfortunately, in some of the organisations, not in all of them for nursing, there has been a history of gossip mongering and bullying and all that kind of stuff, and I would think they are probably some of the key issues along with the management.'*

Theme 10

Nurse transition and exit

Commentary made by consultants included:

(Internal) C2: '*So the decision to leave may have already been made. A lot leave without ever seeing us, but for instance the …… nurses that have moved to the ……, some have left and some have gone to other areas. They didn't need our input they are very clear about their decision and where they want to work, how they want to work, and for them it was a good decision, they didn't need counselling and it would be inappropriate to do anything like talk them into staying where they are, so we don't have a lot of people present with 'I'm thinking of leaving, help me decide if I should or not.'*

C3: *'and that's usually just leaving the ward or the hospital not exactly the profession, not nursing as whole.'*

C2: *'If people have had enough, I think that's a reasonable decision. There are people that reach our age and say 'it's too physical for me now, it's an acute care setting, I'm not going to get anywhere quiet, so if I want to be less physical I need to be working somewhere else.' I think that's a reasonable decision.'*

C1: *'E.g., 2 ……girls one after the other and they had too many deaths, and this was 3 years ago, and they moved to others hospitals into completely different nursing, and I think that was very good.'*

C2: '*So we didn't lose them to nursing…'*

C1: *'No, and they got worried 'was there something wrong with them' because they were both in their 30s; one had been …..…for 10 years already'*

C2: *'One of them that you facilitated working in another area – and burnout – that's really what it was, burnout, and* **M** *facilitated for her working somewhere else, and she actually loved that somewhere else and never went back to …..'*

'So she was not lost to the organisation, so we are able to help facilitate those things. When a manager might suggest to a nurse 'Would you like to work somewhere else?' and often they'll think 'They're trying to get rid of me' whereas if we suggest it...'

C1: *'A change is as good as a holiday, there's a lot of merit in nursing with that, sometimes they outstay places.'*

C2: *'but they will look at it as a viable option. There are lots of things we can do. Often nurses don't want us to pursue things in bullying, they'll often tell us about it but they wont let us talk to anyone about it, they make a decision to leave. We will argue that even if you don't fix this yourself, what about the people who come after you who still have to work there, they just don't want to know, and we respect that'*

C2: *'I think part of the answer is going to be why do people stay in* **(omitted to protect participants)** *and why we are losing them everywhere else. 'and what is the difference - why are those nurses happy – the patients are still yucky and awful and when they weren't well*

staffed they were leaving. The key factor seems to be……'when you talk to nurses who came, throughout the hospital, everyone complains about staffing – everyone says their area is short staffed. The nurses who went to the **(omitted to protect participants)** *who came from* **(omitted to protect participants)** *said we didn't realise how well staffed we were – they saw the difference, they said we are so short staffed –it is unbelievable are they're choosing to leave that area, and they said they cannot believe how well staffed ……..…… is, and we were talking to them about the violence and the abuse that they <u>just</u> don't get in …….…….. The constant seems to be the staffing levels.'*

(External) C4: *'Most of them remain in the nursing profession; some of them may decide that they want to go and do some agency work to be more flexible, some people, very few, would say that they hate nursing and wish they had never got into it, but I think that's more about them then it is about the profession. I can't think about many people who would say I'm leaving and never going to do this again.'*

(External) C1: *'It gets mentioned quite frequently but I suspect that a huge proportion of those people would just pick themselves up and keep going, and what some of them do is just move to a different work area or a different unit or something like that.'*

(External) C2: *'Sometimes they might move to another area, and sometimes that's because of burnout or compassion fatigue from working in one area, and so sometimes people at least entertain the idea, I wouldn't say most of them do move, some come back to talk to me again and say I did finally make that move. 'I guess there's the group that are getting less job satisfaction because they are choosing to do fewer shifts or they are in the casual pool, to try and reduce the pressure on themselves and to get more balance in their lives and to be more available for their children but they are not experiencing job satisfaction because they are not really identifying with the team.'*
'I think most of them are reluctant to leave and have quite a commitment and passion for their job so they find it hard to leave'.

Theme 11

Organisational culture

Examples of statements made by consultants to this effect include:
(Internal) C1:*'…there is a lot stuff that's going on in nursing that is quite different to other groups**,** that they are not kind to each other. I've recently dealt with a woman who's diabetes was absolutely all over the shop, she'd had a whole lot of other traumas and I went to a group meeting with the various clinical nurse consultants and directors and after we presented our stuff and she stepped out, 2 of them said 'my God we haven't been really good to this woman have we, we haven't noticed she is sick' and it was a huge moment, cathartic thing going on, and she was really ill and she was showing all the symptoms, her agro and her nastiness, but they'd just decided she was a nasty bag and they didn't want her anymore, and then they realised she was sick.'*
C2: **'***They would have seen it in a patient.'*
C1: **'***But they didn't see it in their colleagues, but they often don't, they often don't see grief, stresses, alcohol abuse. They are too busy, and they are so busy it's not funny, they are a very pushed and demanded upon group, but all those things that add to the dynamics, the difficulties, ….'.*

C1: *'…..and that's where that nastiness between each other is prevalent, 'she doesn't have to do all the lifting, and we've got more work to do because she's on Workcover.'*
C2: *'and they count it in the numbers.'*
C1: *'They are just taking it out on someone but they are very stressed because those numbers aren't taken into account. We've had some dreadful times in here where they've been such near misses and dangerous scenarios because we really have had one senior nurse on the one of the most heaviest wards, and she's found out that she has a Workcover, 4 agency nurses, a student, and they can't work together, so they are ringing up and saying they have the numbers but no work skills, so that's dangerous and that adds to their terrible stress levels.'*

Interviewer: '*So it's the whole culture thing that 'I've been through this, you can do it too.'*
C2: '*yes'*
C1: *'yes yes. That's been broken up a lot over the years'*
C2: '*that's very medical'*
C1: '*but I think that's still in there, it relates a bit to some of the profile we've given you'*
C2: *'we did 36 hr shifts and we survived'*
C1: *'and we never needed any counsellors'*
C2: '*If nurses are stressed get me tougher nurses. That was a favourite.'*

C1*: 'but I think that has changed a lot because the issues are different, but then there's professionals, you are a professional if you seek support and help, mentoring, counselling, look at your wellbeing and get somewhere to talk to and sort that out, it's a wise person who does that, it's bloody idiot who keeps it to themselves.'*

(External) C3: *'Often hospitals are entrenched in history, and you will actually see the difference between the four major (public) hospitals, there are actually cultural differences, and I think that has a lot to do with their history. Also within the culture aspects, a lot of the hospitals still operate to very traditional and hierarchical models and I don't think that that necessarily facilitates good work satisfaction.'*
'The other thing is that more and more hospitals are being run by business managers, which conflicts with the clinical areas, and so you have business managers and nursing managers that are clinically capable or competent, and then they have to somehow manage a service together or a department together'.
'I would say of the health systems that I have had experience with, some of the hospitals, the private ones, have a slightly better culture within the organisation; my experience with the

public sector is there has been difficulty in the transition between public to more business orientation as well, so if change transition was enhanced I think you would probably get better working arrangements'

Theme 12

<u>The organisation and retention</u>

Examples of comments supporting the theme are:

(Internal) C2: *'Someone who is underperforming or not performing well will often be referred to us and my experience is that the organisation bends over backwards to help and they are provided with additional training, support, there can be someone one on one…If they end up leaving or they are terminated it's not without a lot of effort on the organisations part.'*

(External) C4: *'…..a formal referral….which is when there has been an issue highlighted, usually by management, that with somebody's behaviour in their work something's not up to scratch…because it costs so much to let an employee go and retrain somebody else, it's more financially viable for them to actually get that person to change their behaviour… it is a very clear process and what happens is the manager sits down and is very specific in saying 'OK, this is what you need to change – you come in late 5 mornings a week, you are supposed to start at 9 and you come in at 9:30 – that's an issue.' …that person then works with a coach ….it's very prescribed and it's very specific and it's documented… it's kinda before they lose their job.'*

Theme 13

The positives:

<u>Advantages of a hierarchical structure</u>

Examples of comments to support this theme are below:

(Internal) C2: *'…I think out of necessity it has to be hierarchical. In the middle of the night someone needs to be able to find out what the policy about something is and… it needs to be very clear, not up for interpretation. For safety I think they …'*

C3: *'You just have to be straight to the point.'*

When comparing hospital nurses to nurses working in aged care:

(External) C4: *'….I think a hospital setting seems to be more structured because there are more people involved, and also people who have been through the ranks and have some management experience to understand things... I also see that because it is small, a lot of nurses in aged care facilities often feel ostracised and can be bullied because there is less structure there and less accountability, and its more open to cliques. "I've been here for a long time and who are you to tell me what to do"- that kind of thing. Also lack of training in the aged care facility.'*

Theme 14

The positives:

Training and support for nursing staff

Excerpts from discussions with consultants that support the final theme are as follows:

(Internal) C1: *'A client of mine was attacked by a patient. I believe the patient became psychotic long before she assaulted my client, but no one recognised it because they are not mental health nurses. They've had no training. We didn't put any input into training.'*

C2: *'…and they feel out of their depth, they don't know, they don't have the information, and don't believe they should. If you went to work in cardiac and you were a general nurse, they would give you training, there is a workbook and competencies you would have to achieve…none of that with mental health, not even recognising it as a specialty in it's own right, and they have been left to cope'.*

(External) C1: *'Professional development is a really important component for them, they seem to have a huge desire to learn and to get better at what they do'.*

(External) C2: *'Another issue I see with the graduate nurses that come through is struggling to make that transition between their training and practical aspects of work. I think that whilst I don't make a judgement about the different styles of training, what has been lost is that sort of apprenticeship, the hands on and helping them gradually become exposed to various things, so they are having the firsts of everything including responsibility and they don't really have a lot of fall back on… they are in the deep end and some wards do it better than others in terms of providing some structured support, but some really feel quite vulnerable and unappreciated'*

APPENDIX 8.2

Inter-rater reliability of the thematic analysis

See table on next page.

$$K = \frac{122 - 15.89}{142 - 15.89} = \frac{106.11}{126.11} = 0.84$$

Prevalence of themes identified in EAP consultant interviews, as coded by a primary and second coder

Coder 1 →

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8	Theme 9	Theme 10	Theme 11	Theme 12	Theme 13	Theme 14	Total
Theme 1	16	1													17
Theme 2	1	10	2										1		14
Theme 3	1		19						1						21
Theme 4	1			4						2				1	8
Theme 5					4										4
Theme 6						4									4
Theme 7							4								4
Theme 8					1			10		1	1				13
Theme 9								1	19						20
Theme 10										4					4
Theme 11	1							1	3		20				25
Theme 12												1			1
Theme 13													2		2
Theme 14														5	5
Total	20	11	21	4	5	4	4	12	23	7	21	1	3	6	142

↑

NB. Sum of diagonal cells = 122

Coder 2