An evaluation of mental health services in the Whyalla Hospital Accident and Emergency Department: a comparison of a new and old model of care.

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Table of Contents

Chapter Three – Methods

Chapter Four – Results

Chapter Five – Discussion

List of Appendices

List of Figures

List of Tables

Statement of Certification

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ACKNOWLEDGEMENT

ABSTRACT

In January 2009 the first Mental Health Nurse Practitioner positions were rolled out in country South Australia, as a result of ongoing mental health reform at both commonwealth and state levels. This thesis reports on research comparing the practice model of a new Mental Health Nurse Practitioner Service, utilising a Mental Health Consultation Liaison model of care and an older, established, in-reach General Practitioner model, of mental health service delivery in a regional accident and emergency department in South Australia. The new Mental Health Nurse Practitioner Service is provided by a Mental Health Nurse Practitioner (Candidate), who secured a position with Country Health SA when they were rolled out in 2009.

To answer the research question 'Does the Mental Health Nurse Practitioner Service improve mental health service delivery in the Accident and Emergency Department of the Whyalla Hospital?' a comparative descriptive study design utilising an empirical and analytical approach was employed. The study compares waiting times, admission rates and re-presentations to the accident and emergency department within 28 days of the original presentation. It also compares the incidence of consultation with other health professionals and the referral to community based mental health services taking place from the Accident and Emergency Department for the two models.

The results of the study are presented and represent significant statistical differences between the two models of care. The major findings of the study conclude engagement with the Mental Health Nurse Practitioner (Candidate) provides an opportunity for specialised comprehensive mental health assessment, timely therapeutic engagement and early intervention commenced in the Accident and Emergency Department. The high rate of consultation liaison from the Accident and Emergency Department as well as referral to community based mental health services is consistent with enhanced care co-ordination.

CHAPTER ONE - INTRODUCTION

1.1 Introduction

The emergence of the Nurse Practitioner role in Australia is relatively new compared to the international perspective. In South Australia Nurse Practitioners are mostly established in metropolitan Adelaide, however in country South Australia Nurse Practitioners are a reasonably new phenomenon. Mental Health Nurse Practitioner positions have only been implemented in Country South Australia since January 2009.

This study compares a General Practitioner in-reach model of practice and a Mental Health Nurse Practitioner (Candidate) model of practice, conducted in the Accident and Emergency Department of the Whyalla Hospital, in the regional city of Whyalla. Whyalla is situated on the upper Spencer Gulf in South Australia, Australia, approximately 400km by road from South Australia's capital city Adelaide.

Persons with mental health issues have the opportunity of attending the Whyalla Hospital Accident and Emergency Department and consulting either a community General Practitioner or the Mental Health Nurse Practitioner (Candidate). The Mental Health Nurse Practitioner Service incorporates an outpatient component which provides the opportunity for consumers to be followed up by attending session limited outpatient appointments with the Mental Health Nurse Practitioner (Candidate).

The Mental Health Nurse Practitioner Outpatient service is based at the Whyalla Hospital. One of the options for follow up mental health care for consumers, who are seen by the Mental Health Nurse Practitioner (Candidate) on presentation to the Accident and Emergency Department, is to make an appointment to see the Nurse Practitioner (Candidate) as an outpatient. Outpatient appointments can be attended at the Whyalla Hospital, in a community setting such as the allied health building or the Intermediate Care

Service, the Mental Health Nurse Practitioner (Candidate) also conducts home visits. The location for follow up outpatient appointments can be negotiated at the time of making the first appointment. Outpatient sessions provide the opportunity for short term intervention and a maximum of five sessions are offered by the Mental Health Nurse Practitioner (Candidate).

If after five sessions ongoing mental health care is indicated, the consumer is referred to a longer term community based service. Options are available for the delivery of longer term community support, ranging from engagement with the Community Mental Health Team or the Shared Care Mental Health Clinician to psychosocial support packages provided by non government organisations. Consumers, who require a higher level of care and are admitted to the Whyalla Hospital after assessment from the Mental Health Nurse Practitioner (Candidate), will be followed up by the Mental Health Nurse Practitioner (Candidate) as an inpatient and/or the Inpatient Mental Health Clinical Practice Consultant. In addition the flexibility of the Mental Health Nurse Practitioner Service model allows the Mental Health Nurse Practitioner (Candidate) to move freely between the hospital and community based services such as the Intermediate Care Service that is introduced later in the chapter.

The World Psychiatric Association (cited in Merritt & Proctor 2010, p.159) reports the global consensus is that mental health care should be undertaken in partnership and collaboration with the consumers of mental health services irrespective of location and in the least restrictive environment. This opinion is reflected throughout the National Mental Health Plan (2008). Merritt & Proctor (2008) examine the therapeutic relationship that develops between Mental Health Consultation Liaison Nurses and their clients, which indeed reflects the constructs of a partnership, relating the interaction to be consistent with the interpersonal relationship theory of nurse theorist Hildegard Peplau. The Peplau model (cited in Merritt & Proctor, 2010), emphasises the crux of the therapeutic relationship as a partnership between the nurse and the patient, with it a notion of shared humanity between the two. In their conclusions they discuss the

importance of the ability of Mental Health Consultation Liaison Nurses to work across clinical settings to be able to engage with consumers (Merritt & Proctor, 2010).

1.2 Context of the study

The city of Whyalla's core catchment population is 25,096; however the Whyalla Hospital's catchment includes the statistical local areas of Whyalla, Cleve, Franklin Harbour, Kimba and unincorporated Whyalla, for example including smaller surrounding communities such as Iron Knob. These additional areas extend the catchment population for more specialised services to 52,491 (Australian Bureau of Statistics cited in Whyalla Health Service Plan, 2010-2019, p.5).

People from Aboriginal and Torres Strait Islander backgrounds comprise 3.1% of the total population. Approximately 4.3% of the population speak a language other than English at home (Whyalla Health Service Plan, 2010-2019). The age structure of the population is relatively consistent with country South Australia, with a slightly higher proportion of the overall population under the age of 44 years. The highest proportion of the population (27%) is in the 25-44 year age group, followed by 25% in the 45-64 year age group. Approximately one-third of the catchment population is under 24 years of age, and more than one-third is above the age of 45 years (Whyalla Health Service Plan 2010-2019).

The projected population for the catchment area is estimated to increase by 8% by the year 2021 (Whyalla Health Service Plan, 2010-2019). The Australian Bureau of Statistics socio-economic index of relative disadvantage (Whyalla Health Service Plan 2010-2019, p.6) identifies, that overall the catchment reflects lower median individual, family and household incomes than for South Australia.

It is reasonable to anticipate that with an 8% increase in population over a ten year period, the recognised burden of lower incomes on individuals and

families, as well as the isolation and lack of access to specialised services due to geographical location, will result in an increased morbidity for the community; increasing the need for health service provision, not least the provision of mental health services. The World Health Organisation (2004) recognises that the absence of mental illness does not necessarily equate to good mental health. Additionally, when in emotional and psychological crisis, many people will present to the Accident and Emergency Department to seek assistance (Clarke, Dusome & Hughes, 2007).

Staff medical officers are doctors who are employees of an organisation/hospital. Staff medical officers are located permanently within the organisation/hospital to deliver medical service to the consumers of that service. The Whyalla Hospital including the Accident and Emergency does not have staff medical officers. Medical intervention and support is provided by the community's General Practitioners who provide an in-reach service into the hospital. Such a model is not unusual in country South Australia, where at the time of the current study, only one hospital based outside metropolitan Adelaide is serviced by staff medical officers.

Due to heavy workloads and community based pressures experienced by the General Practitioners, people can experience long waiting times when they present to the Whyalla Hospital Accident and Emergency Department, resulting in increased anxiety and distress. One of the difficulties that people face when presenting to an Accident and Emergency Department is extended length of stay, as the environment is not optimal for people experiencing mental health problems due to high levels of noise and activity, resulting in a very high stimulus setting (Kalucy, Thomas & King, 2005).

In 2005 the Premier of South Australia, responding to well known community concern about the health system's responses to people experiencing mental health conditions, referred mental health reform to the Social Inclusion Board. The premier was seeking advice on how to remodel the system, to deliver

improved outcomes for people experiencing mental health conditions, their families and carers. As a result the Social Inclusion Board produced *Stepping Up: A Social Inclusion Action Plan for Mental Health Reform 2007-2012* (South Australian Social Inclusion Board, 2006) to communicate this advice.

Part of recommendation 30 of the Action Plan was to develop Mental Health Nurse Practitioner Roles in country South Australia, with a focus on access where there was a shortage of General Practitioners or a limited pool of visiting psychiatrists (South Australian Social Inclusion Board 2007-2012, p. 67). In response Country Health SA Mental Health Services committed to employing and embedding Mental Health Nurse Practitioners in locations across country South Australia, resulting in a Mental Health Nurse Practitioner Service being developed in Whyalla, utilising a consultation liaison model of service delivery.

1.3 Purpose of the study

The Mental Health Nurse Practitioner Service at the Whyalla Hospital is intended to improve patient care and outcomes for consumers presenting to the Accident and Emergency Department with mental health issues. The purpose of the study was to compare the new Mental Health Nurse Practitioner Service provided in the Accident and Emergency Department of the Whyalla Hospital, by the Mental Health Nurse Practitioner (Candidate) with the General Practitioner in-reach model. The Mental Health Nurse Practitioner Service was developed in response to gaps in the existing service, due to no staff medical officer or mental health professional being based in Whyalla Hospital Accident and Emergency Department.

A retrospective audit of the Accident and Emergency Department clinical records was conducted to review the mental health service provided to presentations to the Accident and Emergency department of the Whyalla Hospital. Two models of care, one provided by the community General Practitioners and one provided by the Mental Health Nurse Practitioner (Candidate) were compared.

Particular objectives of the audit were to hand search the clinical records of identified mental health presentations to the Whyalla Hospital Accident and Emergency Department to collect data on numbers of presentations, waiting times from triage to assessment, admission rates, follow up care and the incidence of consultation liaison in the development of care planning. Secondly the researcher sought to identify the types of mental health presentations attending the Accident and Emergency Department including drug and alcohol co-morbidities. Finally the researcher endeavoured to collate, analyse and compare the data collected from the clinical records of presentations treated by the community General Practitioner model and the Mental Health Nurse Practitioner Service model.

1.4 Statement of research question/problem

Does the Mental Health Nurse Practitioner Service improve mental health service delivery in the Accident and Emergency Department of the Whyalla Hospital?

It was envisaged that a high percentage of people who presented to the Accident and Emergency Department of the Whyalla Hospital were experiencing a crisis and that the effects of psychosocial stressors compounded by substance use issues, contributed significantly to their condition. It is imperative mental health services continue to improve to address the needs of current consumers, as well as contribute to forward planning for the projected increase in population in the region over the next ten years and consequently, the anticipated increased numbers of consumers presenting to the Accident and Emergency Department at the Whyalla Hospital.

The South Australian Nurse Practitioners Project Report, known as the Nu Prac Project (Department of Human Services, 1999), clearly articulates that the role of the Nurse Practitioner must be one that addresses identified gaps in service,

in addition to adding value to the quality and range of existing services. In addition the Nu Prac Project (Department of Human Services, 1999) also outlines the importance of a collaborative and coordinated approach to service provision by health professionals. In particular that there are processes in rural and remote locations, to ensure that the consumer's General Practitioner receives information and is involved collaboratively and as appropriate in the consumers care.

1.5 Significance of study

This study is believed to be the first to examine a Mental Health Nurse Practitioner Service using a consultation liaison model of care, in a South Australian regional Accident and Emergency Department, with an option for follow up outpatient care provided and/or co-ordinated by the Mental Health Nurse Practitioner (Candidate). The study contributes to a body of knowledge for Mental Health Nurse Practitioners working in a variety of locations and differing work environments within South Australia.

Due to the recency of Mental Health Nurse Practitioner roles in country South Australia, it is important that the Mental Health Nurse Practitioner Service in the Whyalla Hospital Accident and Emergency Department is compared to evaluate the effectiveness of the service. Outcomes of the study may be of benefit to future mental health service development in the Whyalla Hospital and in Country Health SA. In addition it is important the Mental Health Nurse Practitioner Service continues to develop with a theoretical underpinning based on research.

1.6 Expansion of Mental Health Services in Whyalla

At the time of the study a number of mental health services using a series of models of care were planned or under development in Whyalla and the surrounding region. These included a Limited Treatment Centre, an Intermediate Care Service and a Community Rehabilitation Centre.

On the 1ˢᵗ July 2010 the South Australian Mental Health Act (2009) came into operation. The Mental Health Act is a Law governing the treatment, care and rehabilitation of people with serious mental illness. A significant reform to the Mental Health Act is the implementation of Limited Treatment Centres (Mental Health Act, 2009).

A Limited Treatment Centre is a place approved by the Minister for Mental Health and Substance Abuse to be a Limited Treatment Centre, for example a country general hospital that has capacity to provide mental health care services for a limited period of time (Mental Health Act, 2009). The Whyalla Hospital has been identified as one of the sites that will function as a Limited Treatment Centre. It is not unreasonable to consider that the development and implementation of the Whyalla Hospital as a Limited Treatment Centre may increase the demand for mental health service delivery, hence requiring expansion of specialised mental health services being delivered from the Accident and Emergency Department.

Another recently commenced and developing mental health service in Whyalla is the Port Augusta and Whyalla Intermediate Care Service. Intermediate care is targeted at people whose mental health is deteriorating and require increased support or people with a mental illness who are leaving hospital, but still need support on returning home at a more intense level than that provided by the Community Mental Health Team. Intermediate care is a new level of service for mental health in South Australia. It provides the option for people who are becoming unwell to 'step up' from community care to acute care, or for people who no longer need to receive hospital treatment to 'step down' with continuing care to manage the transition back into the community (SA Health, 2011).

Intermediate Care is a Nurse-Led service and provides a higher level of nursing care for consumers for a limited period of time. Consumers can 'step up' into intermediate care because they are likely to require acute care i.e. in a Limited Treatment Centre, soon if this early intervention is not provided (Social Inclusion Board, 2006). Intermediate Care is also for people to 'step down' from acute

care however who still require continuing care in order to manage back in their communities (Social Inclusion Action Plan, 2007-2012).

Intermediate Care Service is provided as facility based and non-facility based care. In metropolitan Adelaide 60 Intermediate Care beds are available in four 15-bed intermediate care centres. There are 30 Intermediate Care places designated for country South Australia (SA Health, 2011). At the time of the study eight of those places are located within the Intermediate Care Service based in Whyalla. The Whyalla and Port Augusta Intermediate Care Service is a home based service only at the time of the study. The Accident and Emergency Department at the Whyalla Hospital is the access point for consumers from the Intermediate Care Service should they need to 'step up' to acute care.

Community Rehabilitation Centres are community-based residential rehabilitation facilities. Community Rehabilitation Centres support people with mental illness in their recovery journey. They offer a residential setting with support 24 hours per day seven days a week, and an active, goal-focused rehabilitation program (SA Health, 2011).

A Community Rehabilitation Centre has been ear marked for Whyalla and Commonwealth Funding has been secured to build a purpose built facility. The Community Rehabilitation Centre program focuses on preventing further disability by supporting consumers to reduce the chance of relapses and improve their wellbeing through; awareness and acceptance of mental health needs, understanding of early warning signs, development of effective personal plans to manage relapse symptoms, improving access to treatment services (SA Health, 2011). The program also focuses on improving the consumer's connection with services in their local community, such as housing, health services and vocational and educational services (SA Health, 2011).

In view of the expanding mental health services in the Whyalla Community, the implementation of the outpatient component of the Mental Health Nurse Practitioner Service and the flexibility for the Mental Health Nurse Practitioner

(Candidate) to offer services not only in the Accident and Emergency Department, but to also move freely between hospital and community based services, is consistent with the vision of a seamless and connected care system which is consumer focussed and recovery orientated (National Mental Health Policy, 2008).

1.7 Assumptions

As a mental health clinician working in the Accident and Emergency Department of the Whyalla Hospital, the researcher, through observation identified that the implementation of a Mental Health Nurse Practitioner Service in the Accident and Emergency Department of the Whyalla Hospital may improve mental health service delivery. This assumption was developed due to an observable gap in the system due to the absence of staff medical officers and of Accident and Emergency based mental health professionals. Improved mental health service delivery would be evidenced by improved collaboration; improved care planning and improved coordination of care and community follow up.

There is also an assumption that with continued reforms to mental health services and the development and implementation of a number of new mental health services within the Whyalla Hospital and in the Whyalla community, there will be an increase in the number of mental health presentations to the Whyalla Hospital Accident and Emergency Department. This assumption was developed by the researcher as a mental health clinician, working in the Accident and Emergency Department and the observation that the Accident and Emergency Department is often used as the conduit to access different levels of mental health service.

1.8 Definitions of terms

Nurse Practitioner: The Australian Nursing and Midwifery Council (2011) define a Nurse Practitioner as a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical

role. The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to direct referral of patients to other health professionals, prescribing medications and ordering diagnostic investigations. The Nurse Practitioner is grounded in the nursing profession's values, knowledge, theories and practice and provides innovative, flexible health care delivery that compliments other health care providers (Australian Nursing & Midwifery Council, 2011). The scope of practice of the Nurse Practitioner is determined by the context in which the nurse practitioner is authorised to practice (Australian Nursing & Midwifery Council, 2011), for example an Endorsed Mental Health Nurse Practitioner is only authorised to function as a Nurse Practitioner in the field of mental health mental.

Nurse Practitioner Candidate: A registered nurse employed in a designated position within the health sector working towards endorsement as a Nurse Practitioner with the Nursing and Midwifery Board of Australia (Nursing and Midwifery Office of South Australia, 2011).

Mental Health Service:

Mental health services are provided in Australia in a variety of ways including hospitalisation or other residential care facilities, hospital based outpatient services including the Accident and Emergency Department, and community based mental health services. Mental health services may include consultation with specialists and General Practitioners. Often in rural and remote areas of Australia video conferencing technology is used to provide access for clients to specialist psychiatry assessment (Australian Institute of Health and Welfare, 2008).

1.9 Summary of Thesis

The thesis presented provides a report of the research study in five chapters. Chapters one, two and three afford a framework to the study and offer an introduction, literature review and the methods chapter articulating background

and design and the various processes and challenges that were encountered during the research study. Chapter four presents the results of the data analysis and chapter five discusses the findings, their significance to clinical practice and the limitations of the study and recommendations for future research.

Chapter One

Chapter one introduces the thesis and provides the context and the purpose of the study as well as the statement of the research question. It describes new mental health services being developed in Whyalla in response to ongoing mental health reform and describes how the development of these services may impact on the Whyalla Hospital Accident and Emergency Department. It identifies the significance of the study, the assumptions and provides a definition of terms.

Chapter Two

In this chapter the literature review draws together background information relative to the reported research study. The literature review provides the opportunity to identify what prior research had been conducted and identify gaps in the literature pertinent to the topic. The chapter describes how the literature review was undertaken and what resources were accessed.

The literature review provides insight into the development of Nurse Practitioner roles and the recent emergence of Nurse Practitioners in Australia. It reveals nursing knowledge about Mental Health Consultation Liaison Nurses and the subsequent morphing of these roles into that of Mental Health Nurse Practitioners. The literature review clearly identifies the lack of research directly exploring and/or evaluating the work of Mental Health Nurse Practitioner services in rural and remote South Australia. It also identifies the deficit in the knowledge of Mental Health Nurse Practitioner services using a consultation liaison model, incorporating an outpatient service when based in an accident and emergency department.

Chapter Three

The methods chapter provides the strategies used in the conduct of the study. The chapter outlines the inclusion and exclusion criteria for the study, the process of data collection and the challenges that arose during the data collection process. The methods chapter discusses ethical considerations, the process of applying for Human Research Ethics Committee approval and the objective reflections of the researcher's experience during the approval process. Validity and reliability issues of data collection are also talked about as well as the process undertaken to ensure rigour was maintained during the data collection process. The process of statistical analysis is described.

Chapter Four

This chapter reports the results of the data analysis. It provides an explanation of how the clinical records were identified and accessed and the number of clinical records audited. The chapter also presents findings represented graphically and reports on the results of the comparison between two models of care.

The first model (Group 1) comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department and who received a service from the community General Practitioners in-reach service model. The second model (Group 2) comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department and who received a service provided by the Mental Health Nurse Practitioner Service.

Chapter Five

In this chapter the findings of the study are discussed. The findings of the study are interpreted and the major points are summarised. The study is critically reviewed to identify limitations of the study design and data collection methods

and recommendations are provided on how these shortcomings might be addressed for future research and areas for future research are explored.

1.10 Chapter Summary

This introductory chapter has laid the foundation for the significant research study that follows. The intention is to provide a clear rationale of why an investigation of two models of care for those seeking help for mental health issues from an Accident and Emergency Department in a rural hospital was chosen. The purpose is to justify the research being presented.

The chapter establishes the context for the research study, the purpose of the study and states the research question. It provides a definition of terms, assumptions and a summary of the thesis and builds a strong rationale for the significance of the study to follow.

CHAPTER TWO – LITERATURE REVIEW

2.1 Introduction

In this chapter the literature review draws together background information relative to the reported research study. The literature review provides the opportunity to identify prior research that has had been conducted and identify gaps in the literature and research pertinent to the topic. The chapter describes how the literature review was undertaken and what resources were accessed.

The University of Adelaide, Barr Smith Library online search facilities were used to access databases including CINAHL, Medline and Pub-Med and the assistance of the Academic Librarian was invaluable, providing instruction on how to conduct the search. Access to the Academic Librarian was available both online and via telephone.

The key words for conducting the search were Nurse Practitioners, Mental Health Nurse Practitioners, mental health, emergency department, outpatient service, consultation liaison, mental health nurse, emergency department presentations and rural and remote. Peer review articles posted on the Australian College of Mental Health Nursing Consultation Liaison special interest Group website, were also accessed as well as hard copy material in the form of printed journals.

2.2 Mental Health

Mental Health refers to a wide selection of activities that are directly or indirectly related to the mental well-being component, included in the World Health Organisation's (WHO) definition of health: "*A state of complete physical, mental and social well-being, and not merely the absence of disease*" (WHO, 2011). It is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders (WHO, 2011).

Poor mental health is influenced by multiple factors including socio-economic and environmental factors, psychological and biological factors including; low income, homelessness, physical and/or emotional abuse, substance use, poor physical health, grief and loss, work and life stressors and more(WHO, 2004). These factors can result in an individual feeling distressed and experiencing and interruption in thoughts feelings or actions for which urgent therapeutic intervention is required (Saddock & Saddock. 2008).

Four guiding principles are prescribed by the World Health Organisation (2011). They state that everyone has the right to access to treatment for their mental health problems, and that this access is based on their need not on the ability to pay. Also mental health resources should be equitable, and should be fairly distributed according to need across the population (WHO, 2011). The other two principles refer to effectively aiming mental health services at improving health for individuals and communities as a whole, and the efficient distribution of resources in such a way as to maximise gains, again both for individuals and for society as a whole (WHO, 2011).

The global perspective on mental health service delivery began changing in the late 1980s with the United Nations in 1991 establishing principles for the protection of individuals suffering from mental illness, and the improvement of mental health care. This was the first step to bringing understanding and awareness of the needs of those individuals suffering mental illness (Singh, 2001). The World Health Organisation (1996) in their Ten Basic Principles document embraced the United Nations principles, with a focus on promotion, prevention and assisted self determination wherever possible for those suffering from mental illness.

The first Australian National Mental Health Strategy that was endorsed in 1992 was evaluated in 1997, and concluded that considerable progress had been made in several areas, while providing a framework for future directions. This resulted in the development of the second National Mental Health Plan, at the

Australian Health Ministers Conference (1998), which built on the achievements of the 1992 Strategy. An important portion of the second mental health plan targeted a range of different groups within the population, which required different types of interventions to bring about promotion and prevention, as well as acknowledging the range of different settings and approaches that would be required to achieve the desired outcomes.

The Australian National Mental Health Plan (2003-2008) established aims with which to embark upon the delivery of appropriate mental health care for all Australians. These include the promotion of the mental health of the Australian community, to prevent the development of mental disorders where possible through early intervention, to reduce the impact of mental disorders on both the community and on individuals, and to assure the human rights of people with a mental disorder (National Mental Health Plan, 2003-2008).

In 2006 the Council of Australian Governments (COAG) responded to the increasing recognition of the scale and significance of mental health issues in Australia and the importance housing, employment, justice, community and disability support was in the recovery of people experiencing mental health issues. COAG recognised that a whole of government approach was needed to address the issue of mental health and the challenges that confronted those experiencing mental health issues.

As a result the National Action Plan 2006-2011 brought a whole of government approach to mental health which included significant new financial investment and promoted governments working together to achieve improved outcomes in the area of mental health. This resulted in increased policy attention to issues such as homelessness, social inclusion and employment support which impact significantly on the mental health of the Australian community (National Mental Health Policy, 2008).

Commonwealth policy directions include;

- The rights and responsibilities of people with mental health problems and mental illness
- Mental health promotion, prevention and early intervention and the reduction of suicide
- Access to the right care at the right time
- Participation and inclusion
- Carers
- Workforce
- Quality and outcomes
- Building and using evidence based practice

(National Mental Health Policy, 2008, pp.12-25)

Additional works that has been developed over the course of the National Mental Health Strategy and informs policy and service development include;

- National Mental Health Service Standards
- National Practice Standards
- Promotion, Prevention and Early Intervention
- Forensic Mental Health Principals

(National Mental Health Policy, 2008, p.5)

The Fourth National Mental Health Plan (2009-2014) has been developed to further guide reform. Priorities identified in the fourth plan include;

- Social inclusion and recovery
- Prevention and early intervention
- Service access, coordination and continuity of care
- Quality improvement and innovation
- Accountability-measuring and reporting progress

(Fourth National Mental Health Plan, 2009-2014, pp.24 -62).

At a state level, state governments have responded with the development of their own mental health policies and action plans that are consistent with the

direction of the National Mental Health Strategy. In South Australia the most recent of these is South Australia's Mental Health and Well Being Policy (2010-2015). This policy identifies nine policy directions which include;

- Rights and responsibilities

- Health promotion, prevention and early intervention

- Access and integration of services

- Specialist mental health services and interventions for high risk groups

- Families, carers and communities

- Partnerships and cooperation

- Workforce development and planning for the future

- Safety and quality

- Knowledge and information management

(South Australia's Mental Health and Well Being Policy, 2010-2015, pp.6-18).

The policy is built on the concept of recovery and articulates recovery as

> ……a person' own unique and personal journey to create a fulfilling, hopeful and contributing life and achieve his or her own aspirations, despite the difficulties or limitations that can result from the experience of mental illness….(South Australia's Mental Health and Well Being Policy, 2010-2015. p.5).

2.3 Mental Health Nurses

Mental Health Nurses are registered nurses who hold a recognised specialist qualification in mental health nursing. Mental health nurses care for people with mental illness in community, tertiary and primary health care settings (Australian College of Mental Health Nurses, 2011). Registered nurses in Australia hold a minimum three years Bachelor Degree in Nursing and must be registered to practice with the Australian Nurses Board (Australian Nurses Board, 2011).

Specialist qualifications held by mental health nurses are at post graduate level of Graduate Diploma or above. Many Mental Health Nurses also choose to undergo the Credential for Practice Program with the Australian College of

Mental Health Nurses. Credentialing is a core component of clinical/professional governance or self regulation where members of a profession set standards for practice and establish a minimum requirement for entry, continuing professional development, endorsement and recognition (Australian College of Mental Health Nurses, 2011).

The Mental Health Nurse Credential recognises the skills, expertise and experience of nurses who are practicing as specialist Mental Health Nurses. It demonstrates to employers, professional colleagues, patients and carers that an individual nurse has achieved the professional standard for practice in mental health nursing. The Credential also increases awareness of the contribution Mental Health Nurses make to the mental health of the community (Australian College of Mental Health Nurses, 2011).

To be awarded a credential or to maintain credentialed status, Mental Health Nurses must demonstrate that they hold a licence to practice in Australia, hold a recognised specialist post graduate mental health nursing qualification and have had at least 12 months experience since completing their specialist postgraduate qualification OR have three years experience as a registered nurse working in mental health (Australian College of Mental Health Nurses, 2011).

In addition, to be awarded or maintain credentialed status, Mental Health Nurses must have been practicing within the last three years, acquired minimum continuing professional development points for education and practice as well as be supported by two referees. Credentialed Mental Health Nurse must also complete a professional declaration agreeing to uphold the standards of the profession (Australian College of Mental Health Nurses, 2011).

2.4 Mental Health and Mental Health Nursing in the Accident and Emergency Department

Deinstitutionalization and mainstreaming was a central policy of the Australian Health Ministers National Mental Health Plan (1992), based on principles of

human rights, equity and the belief that integrated mental health and community services, could provide holistic care to clients in a manner that contributed to the prevention of illness and the reduction of stigma (Kalucy, Thomas & King, 2005). Mainstreaming refers to the integration and collocation of mental health services into the mainstream general health system (Sharrock, Bryant, McNamara, Forster & Happell, 2008).

While there are admirable and valid reasons for deinstitutionalisation and mainstreaming of mental health services, mental health nursing care has consequently moved away from customary mental health settings such as purpose built mental health campuses and is delivered to consumers of mental health services, in general hospital Accident and Emergency Departments, general hospital wards, community settings and other non mental health settings (Brunero & Lamont, 2010). Deinstitutionalisation and mainstreaming of mental health services has resulted in an increase of mental health presentations to Accident and Emergency Departments (Shafiei, Gaynor and Farrell, 2010).

The Australian Bureau of Statistics (2008) reports that in Australia, one in five people will experience a mental health problem or illness each year and 45% of people will experience a mental health problem or illness at some point during their lifetime, including experiences of short term anxiety and depression, substance use disorders and longer term conditions such as anxiety disorders, chronic depression and schizophrenia. General Accident and Emergency Departments are open 24 hours a day, 7 days a week and are understandable places for consumers experiencing mental health distress and/or crisis and their families to seek help (Clarke, Dusome & Hughes, 2007).

The increased burden to general health services as a result of deinstitutionalisation and mainstreaming of mental health services has not gone unnoticed by policy makers in Australia both at a commonwealth and state level. In South Australia, South Australia's Mental Health and Well Being Policy (2010-2015) identifies a range of policy directions committed to helping South

Australians achieve the best possible mental health by embedding robust mental health service delivery, within the generalist health system, including Accident and Emergency Departments.

People who are experiencing mental health issues present to Accident and Emergency Departments seeking assistance for a variety of reasons. They may be individuals or families who have had no prior engagement with mental health services and do not know where else to go, while others may be regular consumers of mental health services and present regularly to the Accident and Emergency Department (Clarke, Dusome & Hughes, 2007).

Although it is reasonable for these people experiencing mental health issues to present seeking assistance, they do not fit the treatment norm of the Accident and Emergency Department and therefore tend to disrupt the normal flow (Clarke, Dusome & Hughes, 2007). They may often present with vague, non specific symptoms and take longer to assess. Collateral history may be difficult to obtain and specialty mental health resources may be difficult to access, especially after hours and on weekends (Clarke, Dusome & Hughes, 2007).

Further difficulties may be encountered when people present with psychosis, aggressive or disruptive behaviours and presentations can often be complicated by substance use/abuse issues (Clarke, Dusome & Hughes, 2007). Accident and Emergency Department staff often lacks the confidence and expert knowledge to assess and interact and provide appropriate care for these mental health presentations (Wand & Happell, 2001).

While de-institutionalisation and main-streaming has resulted in many benefits for people experiencing mental health issues, they have also contributed to an increase in the number of mental health presentations to accident and emergency departments in general hospitals, both overseas and in Australia (Kalucy, Thomas & King 2005, Shafiei, Gaynor & Farrell 2011; Wand & Happell 2001). The increase in these presentations has heralded the emergence of the

Mental Health Nurse Practitioner role based in the Accident and Emergency Department. The role is centred on comprehensive training and assessment, communication and advocacy and education, striving to integrate the highest quality, evidence-based best practice to mental health nursing care in the Accident and Emergency Department (Nicholls, Gaynor, Shafiei, Bosanac and Farrell, 2011) and may be considered a natural evolution of the well established Mental Health Consultation Liaison Nurse (Sharrock et al 2008; Wand 2004; Wand & Happell 2001; Wand, White & Patching 2008).

2.5 Mental Health Consultation Liaison Nursing

As a result of mental health reforms staff in general hospitals now have increased contact with the consumers of mental health services and increasing awareness of the need to address mental health issues within general hospital settings (Sharrock et al, 2008). However nurses in general hospital settings often do not believe that they are adequately prepared to deal with the needs of people experiencing mental health issues and report a lack of knowledge, skills and confidence in the assessment and management of mental health issues (Sharrock & Happell, 2006).

Wand and Happell (2001) find the Mental Health Consultation Liaison Nurse role is well received by staff in the accident and emergency department who views the role as providing them with support and resources, information, education and clinical expertise. Brunero and Lemont (2010) support this view, finding that Mental Health Consultation Liaison Nurses use a capacity building approach enabling and empowering general nursing staff to care for patients presenting with mental health issues.

Wand (2004) reports that historically Mental Health Consultation Liaison Nurses working in the general hospital have mostly assisted in the management of consumers with a primary medical condition and co-morbid mental health issue. In contrast the Mental Health Consultation Liaison Nurse working in the Accident and Emergency Department involves the assessment and

management of those who are experiencing a primary mental health presentation (Wand, 2004).

Gillette et al conducted a nine month study (Wand 2004, p.2) and evaluation suggested that the Mental Health Consultation Liaison Nurse working in the Accident and Emergency Department, produced more positive outcomes including: client satisfaction with the service, decreased length of stay, more efficient management of aggressive and potentially aggressive occurrences and attitudinal changes with nurses working with mental health consumers. Thus, the mental health consultation role is focussed on meaningful therapeutic engagement and is important in helping to reduce distressing symptoms, reduce the stigma for seeking help for mental health issues and enhancing mental health literacy among generalist nurses (Merritt & Procter, 2010). Traditional Mental Health Consultation Liaison Nurse roles have evolved into Mental Health Nurse Practitioner roles (Sharrock et al, 2008; Wand 2004; Wand & Happell 2001; Wand, White & Patching 2008), retaining the consultation liaison model of service delivery.

2.6 Nurse Practitioners

The Australian Nursing and Midwifery Council (2011) define a Nurse Practitioner as a 'registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role'. The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to direct referral of patients to other health professionals, prescribing medications and ordering diagnostic investigations. The Nurse Practitioner is grounded in the nursing profession's values, knowledge, theories and practice and provides innovative, flexible health care delivery that compliments other health care providers (Australian Nursing & Midwifery Council, 2011). The scope of practice of the Nurse Practitioner is determined by the context in which the nurse practitioner is authorised/endorsed to practice (Australian Nursing & Midwifery Council, for example, an Endorsed Mental Health Nurse Practitioner is only

authorised to function as a Nurse Practitioner in the field of mental health mental.

The emergence of the Nurse Practitioner role in Australia is relatively new compared to some other countries. Nurse Practitioners first appeared in the United States of America in the middle of the 1960s and are now established in Canada, the United Kingdom and Ireland, parts of Europe, Asia, New Zealand and Australia (Wand, White & Patching 2008). Research into the role of Nurse Practitioners is extensive and is dominated by health service and policy research, indicating the emerging nature of this type of health care (Gardener, Gardener, Middleton, Della, Kain & Doubrovsky 2010). World wide up to 40 countries have commenced, or are working towards Nurse Practitioner programmes (Middleton, Allnut, Griffiths, McMaster, O'Connell & Hillege 2007).

The Nurse Practitioner role in Australia was first explored in the state of New South Wales (NSW) in 1990, by the Department of Health in collaboration with other peak nursing bodies and prompted the establishment of the Nurse Practitioner Project (NUPRAC) in South Australia in 1996 (NUPRAC Project, 1999). The Ministerial Advisory Committee for the NUPRAC Project was given the task of advising on the appropriate means to collaborative implement the Nurse Practitioner role in South Australia (NUPRAC Project, 1999). The final NUPRAC Project report was completed in 1999 and is an extensive document containing 32 recommendations and exemplars providing a framework for collaboratively implementing the Nurse Practitioner role in South Australia.

The Nurse Practitioner title is protected by legislation in Australia, New Zealand, Canada, Ireland and the United States of America (Wand, White, Patching, Dixon & Green 2010). Wand et al (2010), comment that regulation is a crucial feature of Nurse Practitioner practice due to the implications the role has to public safety. Regulation ensures that Nurse Practitioners have the essential skills and qualifications to practice and rigorous criteria are placed on

authorisation as well as periodic reauthorisation, demonstrating a commitment to continued professional development and competency (Wand et al, 2010).

Nurse Practitioners in Australia must meet criteria set out by the Australian Nursing and Midwifery Board (2010) as well as meeting the National Competency Standards for Nurse Practitioners set by the Australian Nursing and Midwifery Council (2010). This is in addition to holding a Master of Nurse Practitioner qualification. Authorisation as a Nurse Practitioner in Australia enables the nurse to work within a defined scope of practice, to prescribe and administer certain medications relevant to their specialty area and based on an agreed formulary, as well as initiate focused diagnostic investigations such as pathology tests and medical imaging. In addition being authorised formalises the right to refer to specialists (Wand, et al 2008). Nurse Practitioners can now be found imbedded in the nursing workforce throughout Australia in various specialty fields including mental health.

2.7 Mental Health Nurse Practitioners and the South Australian Perspective

In South Australia Mental Health Nurse Practitioners are implemented in metropolitan Adelaide, however Mental Health Nurse Practitioner positions have only been rolled out in country South Australia since January 2009 in response to *Stepping Up: A Social Inclusion Action Plan for Mental Health Reform 2007-2012* (Social Inclusion Board, 2006). The Action Plan (2007-2012) is a result of the Social Inclusion Board responding to the governments request in 2005 for advice on systems providing mental health services to South Australians. Its intention is to deliver improved outcomes for all South Australians inclusive of Aboriginal people, older people and country people (Social Inclusion Board, 2006).

The Action Plan recognises unique conditions in country South Australia setting it apart from the other Australian states and territories. Population distribution is much thinner across South Australia, with no regional centre exhibiting a

population much in excess of 25,000 people (South Australian Social Inclusion Board 2007-2012, p.15). The Action Plan also recognises that due to lack of commercial flights connecting regional centres and no regional passenger rail services, road travel is the main method of travel in country South Australia, resulting in inequitable service access.

As part of the implementation of the Action Plan, Country Health SA Mental Health Services has committed to employing and embedding Mental Health Nurse Practitioners in rural and remote locations across South Australia. One of these locations and the focus of this study is the city of Whyalla situated on the upper Spencer Gulf approximately 400km by road from South Australia's capital city Adelaide.

The Mental Health Nurse Practitioner working in the Accident and Emergency Department provides the opportunity for easily accessed, evidenced based, recovery focussed mental health care. It enables early intervention, promotes consumer and carer participation and addresses the stigma of mental health by being a resource and support for general nursing staff and others in the Accident and Emergency Department. The role of the Mental Health Nurse Practitioner in the Accident and Emergency Department is consistent with the application of the National Mental Health Standards (2010) and the vision of the South Australia's Mental Health and Wellbeing Policy (2010-2015).

2.8 Gaps in the literature

The developing Mental Health Nurse Practitioner Service based in the Accident and Emergency Department of the Whyalla Hospital, is based on a model established at the Royal Prince Alfred Hospital in Sydney, Australia. The Royal Prince Alfred model is an accident and emergency based service and is an extension of the Mental Health Liaison Nurse role (Wand, White & Patching 2008). On review of the literature only one preliminary study evaluating the value of a Mental Health Nurse Practitioner Service with an outpatient component based in the Accident and Emergency Department was found.

Wand, White, Patching, Dixon and Green (2010) boast that the Mental Health Nurse Practitioner outpatient service at the Royal Prince Alfred Hospital is the first of its kind in Australia and is intended to reduce the delay in follow up, experienced by consumers presenting to the Accident and Emergency Department with mental health issues.

Although the service and study by Wand et al (2010) is the first of its kind to be set up and evaluated in Australia, initial outcomes have been positive and considering the core similarities between the two Mental Health Nurse Practitioner services, the Royal Prince Alfred service is an encouraging design model to base, with adaptations, the Whyalla Mental Health Nurse Practitioner Service. Not withstanding the differences in geographical location and population variances, the literature provides a wide body of evidence in favour of Mental Health Consultation Liaison Nurses and Mental Health Nurse Practitioners in the Accident and Emergency Department and provides a strong foundation for this study. The model is supported by further work conducted by Wand, White, Patching, Dixon and Green (2011), consisting of a study presented in two papers, evaluating the Accident and Emergency based Mental Health Nurse Practitioner outpatient service at the Royal Prince Alfred Hospital. The study presents qualitative findings using a mixed method design and demonstrates positive outcomes for consumers and staff.

No literature that identified examined or evaluated the roles or services of Mental Health Nurse Practitioners in rural and remote South Australia were found. This was to be expected considering Mental Health Nurse Practitioner roles have only been rolled out in rural and remote South Australian locations since January 2009. In addition no literature was identified for Mental Health Nurse Practitioners working in a consultation liaison role, in the accident and emergency department, with an outpatient component, other than the study by Wand et al (2010). Again this was to be expected considering that the Royal Prince Alfred Hospital service is the first of its kind to be developed and evaluated in Australia.

2.9 Summary of Chapter

This literature review provides insight into the development of Nurse Practitioner roles and the recent emergence of Nurse Practitioners in Australia. It reveals nursing knowledge about Mental Health Consultation Liaison Nurses and the subsequent morphing of these roles into that of Mental Health Nurse Practitioners.

The literature review clearly identifies the lack of research directly exploring and/or evaluating the work of Mental Health Nurse Practitioner services in rural and remote South Australia. It also identifies the deficit in the knowledge of Mental Health Nurse Practitioner services using a consultation liaison model, incorporating an outpatient service when based in an accident and emergency department.

The absence of literature was not surprising considering the innovation of Mental Health Nurse Practitioners in Country Health SA so recently, as well as the newness of Mental Health Nurse Practitioners delivering outpatient services as part a hospital based accident and emergency service. The literature reveals a gap in the body of nursing knowledge about Mental Health Nurse Practitioner services in rural and remote South Australia and in so doing provided a positive impetus for completion of this study. The following chapter will explain the study design chosen to explore two different models of care for people who present to the Accident and Emergency Department of the Whyalla Hospital experiencing mental health issues and the methods chosen to achieve the aim.

CHAPTER 3 - METHODS

3.1 Introduction

This research study aims to compare a new Mental Health Nurse Practitioner Service provided in the Accident and Emergency Department of the Whyalla Hospital, located in Whyalla, on Yorke Peninsula, in South Australia. The research is interested in seeking to identify if and how the Mental Health Nurse Practitioner Service improves mental health service delivery in the Accident and Emergency Department, so that mental health service planning can be better informed. This chapter introduces the comparative descriptive study design used to conduct the reported research. Inclusion and exclusion criteria, data collection and analysis are described. Validity and reliability issues as well as ethical considerations will be discussed.

A comparative descriptive study design has been used to compare quantitative data gathered from the clinical records of mental health presentations to the Accident and Emergency Department of the Whyalla Hospital, South Australia. Comparisons between two models of service delivery were conducted.

3.2 Research Design

A comparative descriptive design is one in which two or more groups are compared on particular variables and which are explored for differences (Trochim, 2006). In general this type of design has similar advantages and disadvantages as a simple descriptive design; however it has the extra benefit of allowing comparison of the two groups (Trochim, 2006). The evidence produced by such a design is therefore a little stronger than a simple descriptive design (Trochim, 2006).

Descriptive statistics have been used to measure the difference between groups. Descriptive statistics simply summarise the sample and the measures are represented in simple graphs allowing for straightforward representations of analysis (Trochim, 2006). Descriptive statistics differ from inferential statistics in

that they simply describe what is or what the data shows, rather than trying to reach conclusions that expand further from the immediate data alone (Trochim, 2006). A flow chart depicting this comparative descriptive study is shown below.

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┌─────────────────────────────────────────────────────────────────────┐
│        Develop Research Proposal Including Research Design            │
│                    01/03/2011 – 31/05/2011                           │
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┌─────────────────────────────────────────────────────────────────────┐
│  Submit applications to The University of Adelaide Human Research     │
│  Ethics Committee, The Aboriginal Health Research Ethics Committee,   │
│  the Department of Health Human Research Ethics Committee and         │
│  Whyalla Hospital Executive                                          │
│                         01/06/2011                                   │
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              ┌──────────────────────────────────┐
              │         Approval Granted          │
              │           08/09/2011              │
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              ┌──────────────────────────────────┐
              │     Data Collection Conducted     │
              │       13/09/2011 – 14/10/2011     │
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         ┌────────────────────────────────────────────┐
         │   Audit of Data Collection Process Completed │
         │                 14/11/2011                   │
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   ┌──────────────────────────────────────────────────────────┐
   │  Analysis of data using GraphPad™ software, calculation of │
   │  mean and development of graph representation for comparison│
   │                  15/11/2011 – 30/11/2011                   │
   └──────────────────────────────────────────────────────────┘
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      ┌────────────────────────────────────────────────┐
      │  Report Findings in Thesis and Submit to Examiners│
      │                   03/12/2011                     │
      └────────────────────────────────────────────────┘
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Figure 1: Flow Chart
Simple Pathway for Conducting Comparative Descriptive Research Design

31

3.3 Sample

The population of interest were adults over the age of 18 years, who presented to the Accident and Emergency Department of the Whyalla Hospital experiencing mental health issues. Inclusion criteria were the clinical records of adults over the age of 18 years who presented to the Accident and Emergency Department of the Whyalla Hospital from 1st February 2011 - 31st August 2011 while experiencing mental health issues. Exclusion criteria were clinical records of people with cognitive impairment or developmental disabilities or those of people under the age of 18 years.

The sample consists of thirty five (35) clinical records of adults who presented to the Accident and Emergency Department of the Whyalla Hospital experiencing mental health issues, from 1st February 2011 – 31st August 2011. The clinical records of adult consumers identified with cognitive impairment or developmental disability did not fall within the scope of the study so were therefore were excluded. Clinical records of young people experiencing mental health issues under the age of 18 years were also excluded.

The clinical records that met the inclusion criteria were assigned either to Group 1 or Group 2, each group representing a different model of care. The first model (Group 1) comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department and who received a service from the community General Practitioners in-reach service model. The second model (Group 2) comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department and who received a service provided by the Mental Health Nurse Practitioner (Candidate).

3.4 Data Collection

The clinical records to be audited were identified using the 'CHIRONᵀᴹ' database and accessing the Patient Master Indexᵀᴹ and Country Data Martᵀᴹ. A computer generated master sheet was used to identify and list the clinical

records to be audited. In the initial search 209 clinical records were identified as presenting with mental health issues, from the 1st February 2011 - 31 August 2011. Due to time constraints associated with the study being completed within the academic semester and the capacity of the researcher to hand search the records in the required time frame, 10 clinical records were randomly selected from each month from 1st February 2011 - 31 August 2011, to be hand searched for data that met the objectives and inclusion criteria of the study; a total of 70 clinical records were audited.

A total of 70 clinical records were hand searched with 35 of the clinical records, or 50% meeting criteria to be included in the study. The other 50% were excluded from the study as they evidenced exclusion criteria. Each clinical record included in the study was assigned a de-identifying number in chronological order for use during the study.

The researcher anticipated that a greater number of clinical records would meet inclusion criteria. Unfortunately, however, the researcher discovered during the process that it was not possible to ascertain which of the clinical records would meet inclusion criteria until the hand search of the clinical records was commenced. The clinical records identified on the computer generated master sheet, were identified by the electronic data base by reason for presentation at the Accident and Emergency Department only, in this instance mental health presentations and it was possible to select the inclusion dates 1st February 2011-31st August 2011.

Prior to commencing data collection a request was lodged with the clinical records department to pull the hard copy clinical records from the records department. The researcher hand searched the 70 clinical records. Immediately it was identified that a clinical record did not meet inclusion criteria, the clinical record would be set aside with no further access to that clinical record. No information what so ever was recorded from the clinical records that were excluded.

Data collection was conducted by the researcher in the clinical records department, which is a secure area. The researcher assigned each record to be included in the study into either Group 1 or Group 2. The data collection tool was designed by the researcher to record the information accessed in the clinical records that addressed the objectives of the study. The data collection tool was reviewed by a statistician prior to use and implemented for the data collection process. The data collection tool was designed to be as simple as possible, allowing the majority of data to be recorded as either yes or no responses, with some information recorded in minutes of time or by primary diagnosis. A copy of the data collection tool (Appendix 1) was included in the approved research proposal.

Data that met inclusion criteria was transcribed by the researcher from the clinical records onto the data collection tool. The data collection tool was located on a Country Health SA password secured computer. A total of twenty (20) clinical records constituted Group 1. The clinical records in Group 1 were assigned de-identifying numbers from 1-20. No identifying data was recorded. Group 2 comprised of 15 clinical records. These records were allocated de-identifying numbers 21–35. Again no identifiable information was recorded for Group 2. The numbers allocated to the clinical records were recorded next to the corresponding clinical record on the electronic master sheet.

The numbers allocated to the clinical records were recorded next to the corresponding clinical record on the electronic master sheet (Appendix 2) to facilitate the clinical records being accessed by the Network Principal Clinician Country Health SA for the purpose of a randomised audit of the data collected by the researcher. This was a requirement stipulated by The University of Adelaide Human Research Ethics Committee, to ensure rigour was maintained by the researcher during the data collection process. On completion of the randomised audit of collected data the electronic master sheet was destroyed by shredding.

The researcher transcribed the required information from the clinical records onto the data collection tool collecting the following information for both Group 1 and Group 2;

- The number of the clinical record being reviewed in chronological order
- Waiting times in the Whyalla Hospital Accident and Emergency department from triage to assessment
- The primary reason for presentation
- Whether there were unplanned re-presentations within 28 days post discharge
- Admission rates from the Accident and Emergency Department directly post assessment
- Numbers of referrals to the Whyalla Community Mental Health Team from the Accident and Emergency department post assessment
- Numbers of referrals to community based mental health services not the Community Mental Health Team
- Numbers of co-morbid mental health and drug, alcohol and other drugs issues
- Evidence of consultation/liaison with other health service providers during the Accident and Emergency presentation

Some additional information was gathered for Group 2;

- If consumers were being seen by the Mental Health Nurse Practitioner Candidate who was making the referrals
- Was there evidence of attendance to session limited Mental Health Nurse Practitioner Candidate outpatient service

3.5 Ethical Consideration

All data collected was de-identified and stored electronically on a password secured Country Health SA Computer. Initially it was thought that hard copies of the data collection tool would be required, however when data collection

commenced the process revealed all data could be collected electronically, alleviating any ethical concerns relating to the storage of hard copy data.

All research studies involving human participants whether it involves direct contact with people or as in this study, access to data documented in clinical records with no human participation requires ethical approval prior to the commencement of the study. Significant delay in the commencement of the study was experienced due to the research proposal requiring submission to three separate Human Research Ethics Committees.

Applications were initially submitted to The University of Adelaide Human Research Ethics Committee as the study was conducted in the contest of the researcher completing a Master of Nurse Practitioner with The University of Adelaide. An application to the Department of Health Human Research Ethics Committee was required as the researcher is employed by Country Health SA Mental Health Services as a Mental Health Nurse Practitioner Candidate. Both the Adelaide Human Research Ethics Committee and the Department of Health Human Research Ethics Committee identified concerns around the researcher accessing clinical records and the absence of consent.

Both Human Research Ethics Committees requested more explicit justification for waiving patient consent to access personal information. A detailed response was prepared by the researcher and submitted to both Human Research Ethics Committees responding to Section 2.3.6 of the National Statement on Ethical Conduct in Human Research. In particular 2.3.6 (c) – why it is impracticable to obtain consent. The waiver for consent was granted by both committees after reviewing the researcher's response.

Additionally the Department of Health Human Research Ethics Committee required the researcher to submit an application to The Aboriginal Health Research Ethics Committee citing that the demographics of Whyalla supported such an application. The researcher subsequently prepared and submitted the application. As a result the Aboriginal Health Research Ethics Committee

required the researcher to liaise with the Aboriginal Elders about conducting the research project.

In response the researcher liaised with the Chief Executive Officer of the Nunyarra Aboriginal Wellbeing Centre to negotiate a meeting with the community elders. The Chief Executive Officer was provided with a copy of the research proposal to present to the community elders at the next board meeting. The response from the Chief Executive Officer was that the study could go ahead without the researcher meeting with the community elders, as there was to be no direct contact with Aboriginal people and that all data from the clinical records would be de-identified. The application to The Aboriginal Health Research Ethics Committee was subsequently granted.

Considerable frustration was experienced by the researcher as a result of the delays to Human Research Ethics approval. The researcher was required to complete the study within the time constraints of the academic year in the context of completing an academic program. The research proposal had identified that data collection would commence on the 1st August 2011 however final Ethics approvals (Appendix 3) were not granted until the 5th September 2011, delaying the commencement of the study for over five weeks.

An application was also lodged with the Whyalla Hospital Executive Committee to access clinical records for the purpose of collecting data to conduct research. The application was lodged using the formal request process and application form (Appendix 4). The application was approved by the Whyalla Hospital Executive Committee on the 5th August 2011.

3.6 Validity and Reliability

Because the researcher for the study was the Mental Health Nurse Practitioner (Candidate) providing the mental health service in the Accident and Emergency Department, a process was developed to ensure rigour was maintained throughout the data collection process. Whereby a senior member of Country

Health SA Mental Health Services undertook an independent randomised audit of 10% of the data collected by the researcher to ensure rigour was maintained during the data collection. A Network Senior Mental Health Clinician of County Health SA Mental Health Services conducted the audit on the 14th November 2011. A contract undertaking to keep all information accessed confidential and not to access any information other than the data required to conduct the audit was signed prior to it being commenced (Appendix 5).

The Network Senior Mental Health Clinician nominated to audit every fifth clinical record. The records were identified using the electronic master sheet and a request was lodged with the clinical records department three days prior to the audit for the records to be accessed as per the required protocol. The Network Senior Mental Health Clinician hand searched the identified clinical records and compared the data collected and transcribed by the researcher onto the data collection tool, to the information documented within the clinical records. Following the audit a dated and signed letter confirming the audit had been conducted to ensure the maintenance of rigour during data collection was provided by the Network Senior Mental Health Clinician (Appendix 6).

3.7 Statistical Analysis

Descriptive statistics present quantitative data in a manageable way and allow for the examination across cases of one variable at a time using one or all of three major characteristics, the distribution, the central tendency and/or the dispersion (Trochim, 2006). In this study frequency distribution describes the data allocated to either Group 1 or Group 2. The described data is displayed in graph form depicting the mean to describe the central tendency. The mean was calculated by adding up all the values in each group and then dividing the result by the numbers of values in the group.

The central tendency is an estimate of the centre of the distribution values and there are three major types of estimates of central tendency, mean or average, median or the score found in the exact centre of the set of values and mode or

the most frequently occurring score in the set of values (Trochin, 2006). The mean is the most commonly used method of describing central tendency (Trochin, 2006) and as stated earlier in this chapter the method used in this study.

Prior to the analysis of the data a statistician was consulted to provide advice on how best to analyse the data and the appropriate tool to use for analysis. The advice received was that the data collected from the clinical records be presented on a Microsoft Excel spreadsheet and GraphPad[TM] Software (2011). All data presented on the spreadsheet were recorded as either yes or no responses to the identified outcomes, except for waiting times from triage to assessment which were recorded in minutes of time and primary reason for presentation which was recorded as the primary reason for presentation, for example situational crisis, suicidal ideation etc.

GraphPad[TM] software was used to analyse data using 2X2 contingency tables. Contingency tables summarize results where the outcome is a categorical variable (Polit & Beck, 2008, p.568), such as disease versus no disease; pass versus fail or in this case yes versus no. Responses for both Group 1 and Group 2 were entered into the software for each of the identified outcomes recorded on the spreadsheet; a dot pointed list of each of the outcomes can be viewed in 3.4 of this chapter.

Yes responses and no responses were counted for each outcome, for Group 1 and for Group 2 and entered into the GraphPad[TM] QuickCalcs online software (GraphPad[TM] Software, 2011). The software was used to conduct statistical calculations using Fisher's exact test, to compute a two-tailed P value and identify if the association between the two groups for each particular outcome was statistically significant (Polit & Beck, 2008, p.601). Results of the analysis were converted into graph form using the mean for each outcome, to facilitate comparison of the two groups.

3.8 Chapter Summary

The methods chapter provides the strategies used in the conduct of the study. The chapter outlines the inclusion and exclusion criteria for the study, the process of data collection and the challenges that arose during the data collection process. The methods chapter also discusses ethical considerations and outcomes from Human Research Ethics Committee.

Validity and reliability issues of data collection are also talked about as well as the process undertaken to ensure rigour was maintained during the data collection process. The process of statistical analysis is described. The results of data analysis and the comparative graphs developed to present the results are presented in the next chapter.

CHAPTER 4 – RESULTS

4.1 Introduction

This chapter details the findings from the data analysis and presents the findings graphically and reports on the results of the comparison between Group1 and Group 2 for each outcome are detailed. Thirty five (35) clinical records were identified as meeting inclusion criteria.

Group 1 –comprised 20 clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department of the Whyalla Hospital and who received a service by the community General Practitioners in-reach service model. Group 2 – comprised 15 clinical records consisting of mental health presentations to the Accident and Emergency Department of the Whyalla Hospital and who received a service by the Mental Health Nurse Practitioner (Candidate) comprised 15 clinical records. The data collected from the 35 clinical records that met inclusion criteria completed the audit.

4.2 Findings

Table 1 represents the results of the Fisher's exact tests run on data with yes or no responses. The table results contained in the table are represented graphically throughout chapter four. Fisher's exact tests were conducted by both the researcher and a statistician. This provided the opportunity to confirm the result of the Fisher's exact test to be true and correct. Fisher's exact p values are reported for each variable. A P value <0.05 indicates a significant difference in groups with respect to the distribution of yeses and nos in the data.

Table 1: Results of Fisher's exact test of data with yes or no responses

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Variable	Was condition present / Action taken	Group 1	Group 2	p-value
				.
Suicidal Ideation	No	12 (60.0)	10 (66.7)	0.7372
Suicidal Ideation	Yes	8 (40.0)	5 (33.3)	.
Situational Crisis	No	15 (75.0)	6 (40.0)	0.0796
Situational Crisis	Yes	5 (25.0)	9 (60.0)	.
Self Harm	No	17 (85.0)	15 (100.0)	0.2437
Self Harm	Yes	3 (15.0)	0 (0.0)	.
Depression	No	15 (75.0)	15 (100.0)	0.0570
Depression	Yes	5 (25.0)	0 (0.0)	.
Anxiety	No	18 (90.0)	15 (100.0)	0.4958
Anxiety	Yes	2 (10.0)	0 (0.0)	.
Bipolar Disorder	No	18 (90.0)	15 (100.0)	0.4958
Bipolar Disorder	Yes	2 (10.0)	0 (0.0)	.
Unplanned Representation	No	13 (65.0)	13 (86.7)	0.2444
Unplanned Representation	Yes	7 (35.0)	2 (13.3)	.
Referral to CMHT	No	15 (75.0)	10 (66.7)	0.7118
Referral to CMHT	Yes	5 (25.0)	5 (33.3)	.
Referral to CBMH	No	20 (100.0)	7 (46.7)	0.0003
Referral to CBMH	Yes	0 (0.0)	8 (53.3)	.
Attendance Outpatient Service	No	20 (100.0)	12 (80.0)	0.0695
Attendance Outpatient Service	Yes	0 (0.0)	3 (20.0)	.
Admission post review	No	8 (40.0)	10 (66.7)	0.1756
Admission post review	Yes	12 (60.0)	5 (33.3)	.
Consultation	No	14 (70.0)	1 (6.7)	0.0003
Consultation	Yes	6 (30.0)	14 (93.3)	.
Substance Use	No	10 (50.0)	5 (33.3)	0.4916
Substance Use	Yes	10 (50.0)	10 (66.7)	.

Figure 2 represents the type of presentations to the Accident and Emergency Department of the Whyalla Hospital during the study period for the audited clinical records. The audit identified a range of types of presentations to the Accident and Emergency Department. Of particular significance are the rates of situational crisis 40% (n=) or 14 out of 35 presentations and suicidal ideation 37% (n=), 13 out of 35 presentations which represent a combined total of 77% (n=) or 27 of the total 35 presentations. The remainder of the presentations included depression 14% (n=) or 5 presentations out of 35, intentional self harm

8% (n=), 3 out of 35, bi polar disorder 6% (n=), 2 out of 35 and presentations with personality disorder 6% (n=) or 2 out of 35. There was an incidence of 11% (n=) or 4 out of 35, that presented with more than one primary type of mental health presentation.
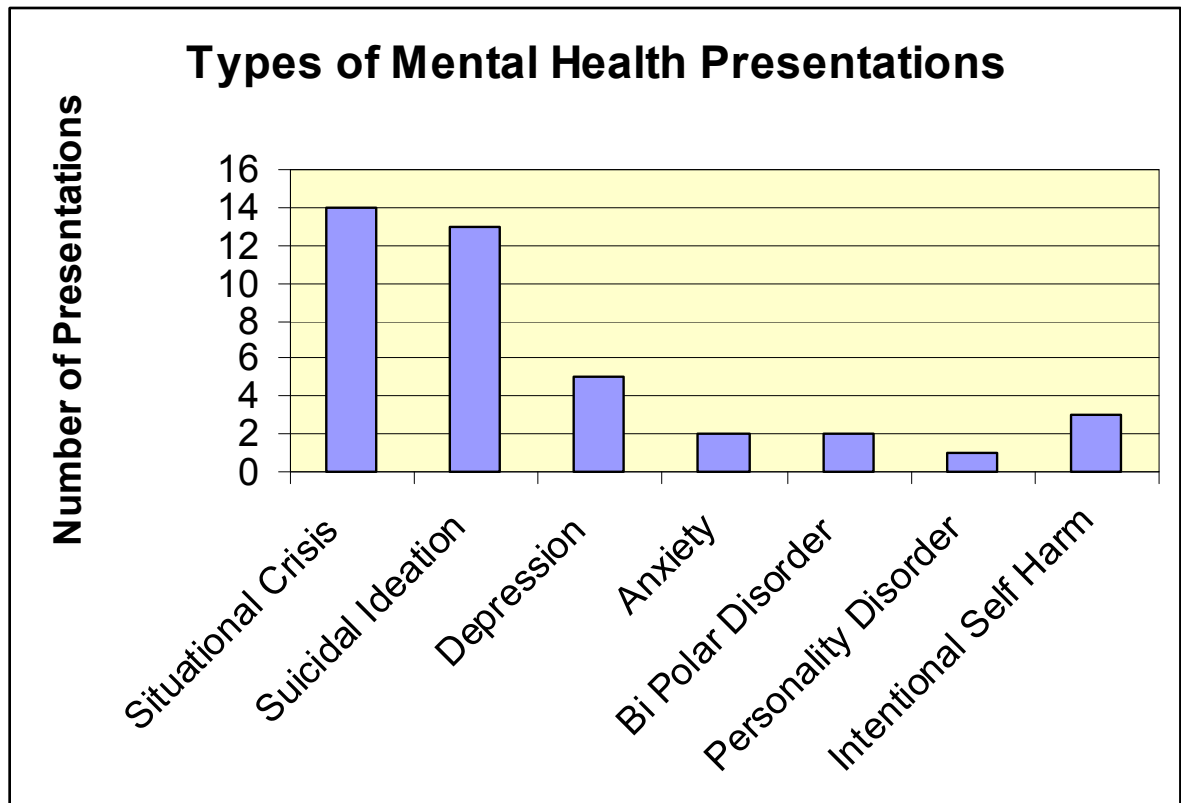
Types of Mental Health Presentations

Figure 2:

Types of mental health presentations to the

Accident and Emergency department from the 01/02/2011 - 31/08/2011

Figure 3 represents presentations that in addition to the primary reason for presentation being a mental health issue, they also presented with co-morbid substance use issues. Substance use issues include alcohol, tobacco and other substances. Other substances include illicit drugs and non-illicit drugs, abuse of prescription medications, both prescribed and purchased illegally, over the counter medications as well as natural therapies/remedies/substances. Presentations experiencing co-morbid substance use issues in addition to the primary reason for presentation being a mental health issue was 57%(n=) equating to 20 out of 35 presentations.
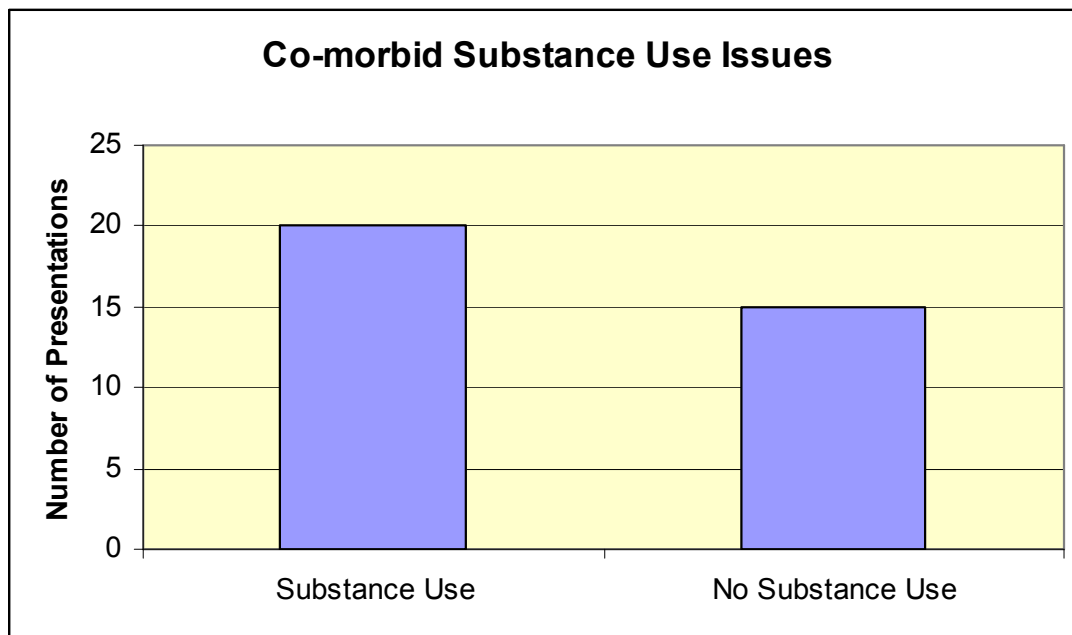
Figure 3:

Presentations evidencing co-morbid substance use issues to the

Accident and Emergency department from 01/02/2011 – 31/08/2011

Figure 4 represents the mean waiting time from triage to assessment for mental health presentations to the accident and emergency department for Group 1 and Group 2. The mean time for Group 1 was 58 minutes and the mean time for Group 2 was 43 minutes which is not considered statistically significant. The difference between the 2 means is 15 mins which may be considered negligible.

However the 3rd column in figure 3 represents a mean time for Group 2 when presentations arrived at the Accident and Emergency Department after business hours and remained in the Accident and Emergency Department overnight and were seen by the Mental Health Nurse Practitioner Candidate the next morning or on one occasion where the presentation was seen by the General Practitioner in the first instance and was then referred to the Mental Health Nurse Practitioner Service. This column represents a mean time of 162 minutes, evidencing a significantly longer waiting time from triage to assessment in comparison to the other two means. The last column in figure 3 represents presentations that left the Accident and Emergency Department without being seen by either group, a total of 4 presentations.
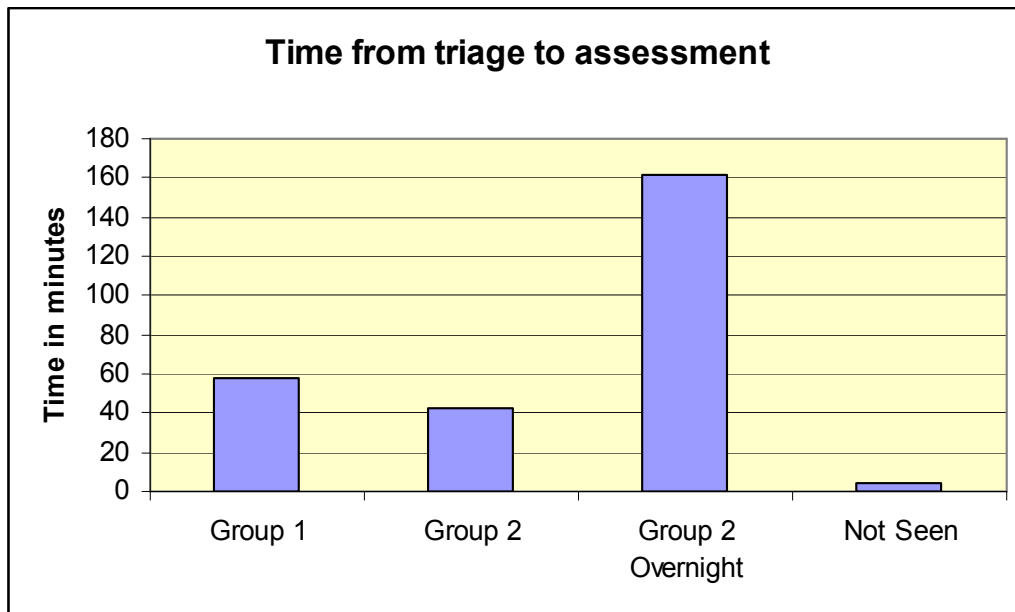
Time from triage to assessment

Figure 4:
Waiting time in the Accident and Emergency department
from triage to assessment 01/02/2011 – 31/08/2011

In figure 5 rates of admission post assessment and unplanned re-presentation within 28 days post assessment are represented for both groups. The admission rate for presentations post assessment for Group 1 was 60% (n=) or 12 out of the 20 presentations were admitted. The rate of unplanned re-presentations to the Accident and Emergency Department for Group 1 was 35% (n=) or 7 out of 20.

The admission rate for Group 2 post assessment was 33% (n=), 5 out of 15 and the incidence of unplanned re-presentation to the Accident and Emergency Department within 28 days was 13% (n=) or 2 out of 15 presentations. On comparison the admission rates for the Mental Health Nurse Practitioner Service (Group 2) were 27% (n=), lower than that of the in-reach General Practitioner model Group 1 and the unplanned re-presentation within 28 days is also lower in the Mental Health Nurse Practitioner Service model by 22% (n=).
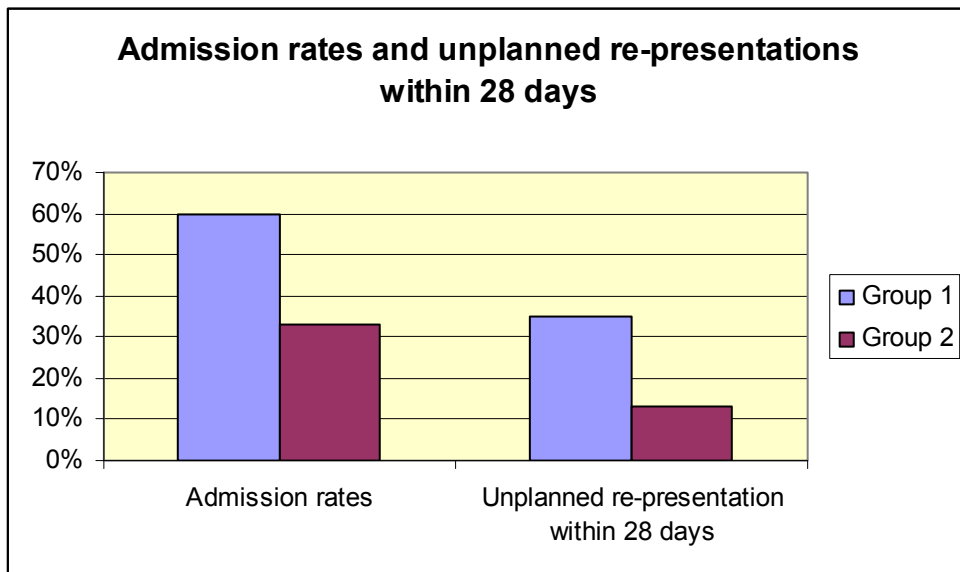
Figure 5:

Admission rates and rates of unplanned re-presentations to the Accident and Emergency department within 28 days post assessment 01/02/2011- 31/02/2011

Three outcomes were measured and analysed for both groups to ascertain the percentages of referrals and consultation liaison conducted by both groups from the Accident and Emergency Department for each presentation. The first outcome measured the percentage of presentations that were referred to the Community Mental Health Team. The second outcome measured the percentage of referrals to community based mental health services other than the community mental health team and the third measured the instances of consultation liaison and are represented in Figure 6.

Group 1 referral rate for the first outcome referral to the Community Mental Health Team was 25% (n=) equating to 5 out of 20 presentations being referred compared to Group 2 referral rate which was 33% (n=) or 5 out of 15 presentations being referred. Percentages for the second outcome referral to community based mental health services other than the community mental health team, for Group 1 was 0% (n=) or zero referrals from 20 presentations. In comparison for Group 2 the referral rate was 53% (n=), 8 out of 15 presentations.

The third and final outcome percentage of consultation liaison with other service providers from the Accident and Emergency Department was the most statistically significant with Group 1 evidencing 30% (n=) or 6 out of 20 presentations of consultation liaison from the Accident and Emergency Department and Group 2 evidencing an 93% (n=) or 14 out of 15 presentations. On comparison of the 2 Groups, the Mental Health Nurse Practitioner Service (Group 2) represents a 62% (n=) greater incidence of consultation liaison taking place from the Accident and Emergency Department and a 53% (n=) greater referral rate to mental health services other than the community mental health team.

The combined rate of referral to the Community Mental Health Team and other community based mental health services from the Accident and Emergency Department for Group 1 was 25% (n=), 5 out of 20 presentations and for Group 2 the combined referral rate was 86% (n=) or 13 out of 15 presentations. This represents a 36% (n=), higher referral rate for Group 2 when compared to Group 1.
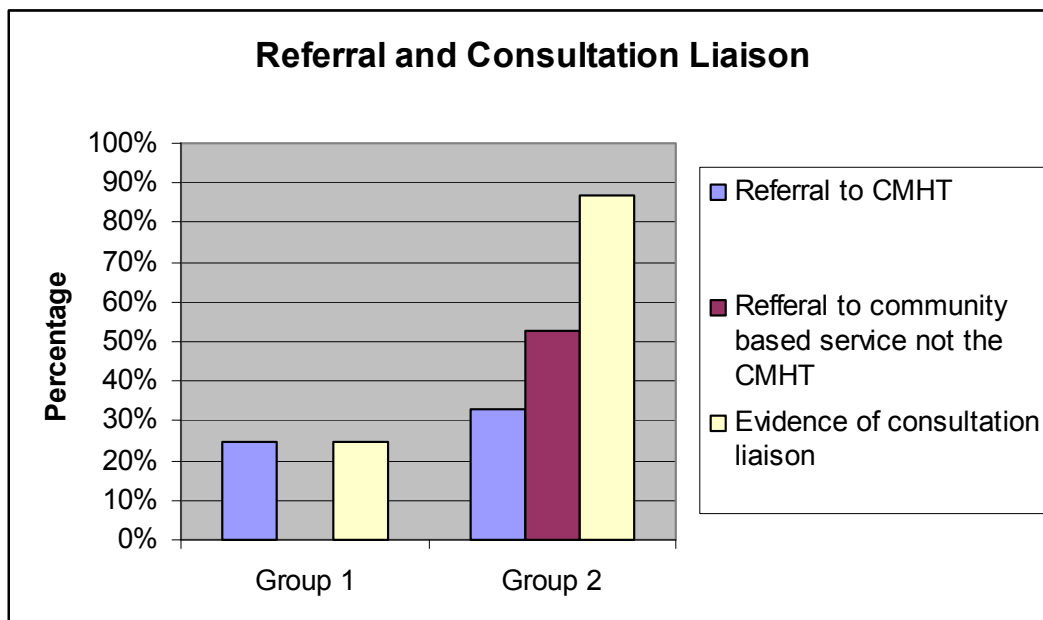

Figure 6:

Percentage of referral and consultation liaison from the

Accident and Emergency department

There were two more outcomes from the data analysis to be considered as part of the study. A) Who was referring to the Mental Health Nurse Practitioner service? B) Was there evidence of presentations that had been seen by the Mental Health Nurse Practitioner Candidate returning to attend the session limited Mental Health Nurse Practitioner Outpatient Service? The answer to the first question was that 53% (n=) or 8 of the referrals were initiated by Accident and Emergency nursing staff, 33% (n=) of the referrals were initiated by General Practitioners and the remaining 13% (n=) were initiated by the local Intermediate Care Service. The audit provided evidence to answer question B) with 20% (n=) or 3 out of the 15 of presentations seen by the Mental Health Nurse Practitioner Candidate returning to attend session limited Mental Health Nurse Practitioner Outpatient Service.

Table 2: Source of referral to Mental Health Nurse Practitioner Service 01/02/2011 – 31/08/2011

Referral Source	No.	Percentage
General Practitioners	5	33.33
Nursing Staff	8	53.33
Intermediate Care	2	13.33

4.3 Summary

This chapter presents the findings resulting from the audit of the clinical records and the analysis of the data collected. The results are presented graphically and in text. The data relating to the two models of care are compared to identify significant statistical differences in waiting time from triage to assessment, rates of admission and unplanned re-presentation within 28 days, as well as rates of referral and evidence of consultation liaison from the Accident and Emergency Department.

Findings are also presented about the types of mental health presentations that attend the Whyalla Hospital Accident and Emergency Department and the incidence of mental health presentations also experiencing co-morbid

substance use issues. The following chapter discusses the major findings and their significance to clinical practice and includes a summary and conclusions.

CHAPTER FIVE – DISCUSSION

5.1 Introduction

The reported study compares two models of mental health service delivery provided in the Accident and Emergency Department of the Whyalla Hospital, to address the research question 'Does the Mental Health Nurse Practitioner Service improve mental health service delivery in the Accident and Emergency Department of the Whyalla Hospital?'.

In this chapter the findings of the study will be discussed with the published literature. Findings of the study are interpreted and the major points summarised. Limitations of the study design and data collection methods will be identified and recommendations for how these shortcomings might be addressed for future research will be discussed.

5.2 Summary of Data Collection and Analysis

Once approval to conduct the study was received from all appropriate committees and departments, data collection commenced in the form of hand searching the identified clinical records which met the inclusion criteria and the recording of the data required for analysis. The data was analysed and represented in comparative graphs in order to compare the two models of mental health service delivery.

The first model identified throughout the study as Group 1 comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency Department and who received a service from the community General Practitioners in-reach service model. The second model identified throughout the study as Group 2 comprised the clinical records of presentations experiencing mental health issues, attending the Accident and Emergency department and who received a service provided by the Mental Health Nurse Practitioner/Candidate.

5.3 Major Findings and their Significance to Clinical Practice

The first outcome measure ascertained the types of mental health presentations attending the Whyalla Hospital Accident and Emergency Department. Analysis showed that a significant 40% of mental health presentations were experiencing situational crisis. This is consistent with the literature that finds poor mental health is influenced by multiple factors including socio-economic and environmental factors, psychological and biological factors including; poor income, homelessness, physical and/or emotional abuse, substance use, poor physical health, grief and loss, work and life stressors and more (WHO, 2004).

These factors can result in an individual feeling distressed and experiencing an interruption in thoughts, feelings or actions for which urgent therapeutic intervention is required (Sadock & Sadock, 2008). People will often present to the Accident and Emergency Department in crisis, seeking assistance when they feel or those around them feel they are no longer able to cope with the emotional disruption they are experiencing.

Wand, White and Patching (2007) recognise that although this group of presentations are often categorised as being less severe, individuals who present to the Accident and Emergency Department with these symptoms and behaviours run the risk of developing enduring mental health conditions if interventions are not put in place. In addition this cohort must be considered at an increased risk of developing suicidal ideation during such periods of psychological disturbance (Wand et al, 2007). Interestingly in light of Wand et al's (2007) findings, mental health presentations experiencing suicidal ideation were also prevalently represented with a noteworthy 37%.

The second outcome representing 57% of presentations, were those experiencing co-morbid substance use issues in addition to the primary reason for presentation being a mental health issue or issues. Again this mean is consistent with the literature that reports a high percentage of people who present to the Accident and Emergency Department will be experiencing a crisis

and that the effects of psychosocial stressors compounded by substance use issues, contribute significantly to their condition (Clarke, Dusome, & Hughes, 2007; Kalucy, Thomas, & King, 2005; Nicholls, Gaynor, Shafiei, Bosanac & Farrell, 2010). These findings are meaningful as they demonstrate that presentations to the Whyalla Hospital Accident and Emergency Department are consistent with presentations in other Accident and Emergency Departments evidenced in the literature.

It is also extremely significant to the Mental Health Nurse Practitioner (Candidate's) clinical practice as the Mental Health Nurse Practitioner (Candidate) working in the Accident and Emergency Department is ideally placed to provide brief intervention to consumers who present with co-morbid substance use issues. Brief intervention is a simple process and can be completed in as little as 10 minutes (Drug & Alcohol Services South Australia, 2011), by completing the World Health Organization Alcohol, Smoking and Substance Involvement Screening Test (ASSIST). The ASSIST is a questionnaire which screens for all levels of problem or risky substance use in adults (Drug & Alcohol Services South Australia, 2011).

In most cases the ASSIST can be completed as part of the Mental Health Nurse Practitioner (Candidates) assessment in the Accident and Emergency Department. After completing the ASSIST the results are discussed with the consumer and their level of risk is identified using the ASSIST feedback report card. The brief intervention is concluded by providing take home materials including the feedback card and a self help strategies booklet (Drug & Alcohol Services South Australia, 2011). The Mental Health Nurse Practitioner (Candidate) may offer and facilitate a referral to a substance use counsellor for consumers who are identified at higher risk as a result of their substance use.

Time from triage to assessment was the next outcome to be measured and the difference in mean waiting time between the two groups was a mean of 15 minutes. However for a small number of presentations that remained in the

Accident and Emergency Department overnight, were seen by the Mental Health Nurse Practitioner Service the next day, with a mean waiting time from triage to assessment 162 minutes. Four presentations left the Accident and Emergency Department without being seen by the General Practitioners in-reach service, after the General Practitioner being made aware of their attendance to the Accident and Emergency Department, due to extended waiting times.

The means times from triage to assessment are not consistent with the researcher's expectation that waiting times from triage to assessment for Group 2 would be shorter than the waiting times from triage to assessment for Group 1. The results may indicate that waiting times from triage to assessment for both groups are equitable. However the possibility that the outcomes are as a result of limitations embedded within the research process is also a consideration.

As presented in the previous chapter, a significant difference was evidenced between the two groups when comparing incidence of admission post assessment and unplanned re-presentations within 28 days. The Mental Health Nurse Practitioner Service's figures represented a significantly lower mean for both these outcomes. Additionally the Mental Health Nurse Practitioner Service's outcomes for consultation liaison taking place from the Accident and Emergency Department and referrals to community based services from the Accident and Emergency Department represented a notably higher mean.

These outcomes are representative of an important positive effect on the outcomes of the presentations seen by the Mental Health Nurse Practitioner Service. Referral to specialised mental health services for assessment and/or therapeutic intervention frequently becomes delayed and anecdotal evidence suggests that at this point individuals often leave the Accident and Emergency Department without assessment, or community follow up is often not appropriate or well coordinated.

The extended referral processes and appointment waiting times, difficulty navigating a multi layered system and the lack of coordination of care from the Accident and Emergency Department result in frustration and the belief it is just too difficult to access the required service. Consumers of mental health services provide consistent messages that there are gaps in the system and disjointed pathways that result in a disruption of continuity of care (Action Plan, 2007-2012).

The outcomes of the analysis substantiate that engagement with the Mental Health Nurse Practitioner Service promotes high rates of consultation liaison with other health professionals and demonstrate the facilitation of referral to community based services. As a result, presentations who engage with the Mental Health Nurse Practitioner Service may have decreased admission rates and decreased unplanned re-presentation to the Accident and Emergency Department within 28 days due to community follow up by specialist mental health services being initiated from the Accident and Emergency Department.

In addition the study reveals that 20% of presentations that engaged with the Mental Health Nurse Practitioner (Candidate) returned to attend the Mental Health Nurse Practitioner outpatient service. Engagement with the Mental Health Nurse Practitioner (Candidate) at presentation to the Accident and Emergency Department with follow-up outpatient intervention is congruent with improved ease of access, prevention and early intervention, sharing of information and education and capacity and partnership building which are all in keeping with South Australia's Mental Health and Wellbeing Policy (2010-2015).

The last outcome to be considered is the referral source to the Nurse Practitioner Mental Health Service. Over half the referrals originated from Accident and Emergency Nursing Staff. The high percentage of referrals from the Accident and Emergency Department nursing staff is consistent with the literature that the Mental Health Consultation Liaison role is well received by staff in the Accident and Emergency department who sees the role as providing

them with support and resources, information, education and clinical expertise (Wand & Happell, 2001). Brunero and Lemont (2010) support this view, finding that Mental Health Consultation Liaison Nurses use a capacity building approach enabling and empowering general nursing staff to care for patients presenting with mental health issues. The literature also reveals the Mental Health Nurse Practitioner role as a natural evolution of the well established Mental Health Consultation Liaison Nurse (Sharrock, Bryant, McNamara, Forster, & Happell 2008; Wand 2004; Wand & Happell 2001; Wand, White & Patching 2008).

There is also evidence that the Mental Health Nurse Practitioner Service is well received by General Practitioners. As reported a referral rate from this group of 33% supports this, with the remaining 13% of referrals coming from the community based Intermediate Care Service. The referral rate of 33% to the Mental Health Nurse Practitioner Service from General Practitioners may indicate an acceptance of the Mental Health Nurse Practitioner (Candidate) role within the Accident and Emergency Department. It may also reflect the recognition by General Practitioners that the Mental Health Nurse Practitioner (Candidate) has extensive knowledge of the mental health system and referral pathways and is able to navigate the complex and multi layered mental health system with some degree of ease.

The 33% referral rate may also be recognition of the specialised skills that underpin the clinical care provided by the Mental Health Nurse Practitioner Candidate in mental health assessment, therapeutic intervention and coordination of mental health care. It is also important to acknowledge the time constraints and pressures experienced by community General Practitioner in their surgeries.

Referring to the Nurse Practitioner (Candidate) alleviates some of the stress associated with those constraints and pressures as it relieves the General Practitioner from having to attend the hospital in the first instance and often at

all, as after assessment by the Mental Health Nurse Practitioner (Candidate) has been completed and a plan of care developed, consultation with the General Practitioner regarding treatment plans and care coordination in many cases can be conducted via telephone.

The 13% referral rate from the Intermediate Care Service may be due to an increase in acuity of consumers of the Intermediate Care Service, requiring a 'step up' to an acute inpatient admission. The Accident and Emergency Department acts as a conduit to access acute services and referral to the Mental Health Nurse Practitioner Candidate provides an opportunity to obtain additional mental health assessment and facilitate hospital admission if it is required. Referral to the Mental Health Nurse Practitioner Candidate also provides an opportunity for Intermediate Care Clinicians to obtain collegial support and to risk share by the means of a second clinical opinion.

5.4 Study Limitations

Limitations of the research study evaluating the Mental Health Nurse Practitioner Service in the Accident and Emergency Department of the Whyalla Hospital by comparing two different models of care became clear as data collection and analysis were conducted. Identifying mental health presentations to the Accident and Emergency Department by using an electronic data base, the Patient Master Index^{TM} and Country Data Mart^{TM} revealed that the information on the data base does not always coincide with the information contained in the clinical records.

The collection of data by hand searching clinical records is cumbersome and time consuming and in a research study with only one researcher and significant time constraints in the context of completing the study within the academic semester, it is not an efficient way to collect data. The lack of resources to access electronic data bases, gain access to clinical records and to hand search clinical records and the shortness of time reduced the number of clinical records that were able to be audited. Although the number complies with

the research proposal a greater number of clinical records and more detailed data collection would have resulted in more robust data for analysis and hence more detailed outcomes.

Consideration must be given to the limitations for practice during the candidacy period of the Mental Health Nurse Practitioner (Candidate) providing the service to the Group 2 cohort. During the candidature period the Mental Health Nurse Practitioner (Candidate) while functioning at an advanced level to provide assessment and management of clients using nursing knowledge and skills, is unable to make direct referral to specialists, prescribe medications or order diagnostic investigations. The implication is that an endorsed Mental Health Nurse Practitioner may have the potential to achieve better outcomes.

The researcher also experienced difficulty gaining access to a statistician to provide advice and recommendation regarding data analysis. Several attempts were made to gain assistance without success. The researcher's academic supervisor for the research study facilitated contact with a statistician and advice regarding data analysis was forthcoming. The researcher's lack of experience in data collection and data analysis may have impacted on the robustness of the data collected.

5.5 Recommendations for Further Investigation

Further investigation into this topic is essential to cement and build on the findings of this study. A more robust collection of data would be beneficial, in supporting the findings of this study as well as providing more detailed statistical information. Details in overall time spent in the Accident and Emergency Department, days and times of arrival and implemented treatment and referral options, could provide opportunities to underpin development of mental health service within the Accident and Emergency Department that better serve the needs of the consumers of mental health services. In addition it could identify areas for workforce development and may provide employment opportunities within the organisation for mental health clinicians. This could be achieved by

the collection of more detailed data and larger sample, conducted over a longer period of time.

The addition of qualitative data to support the quantitative data would also be beneficial. Qualitative data provides narrative descriptions. Narrative information can be obtained by having conversations with participants both consumers and staff, conducting interviews and/or with the use of surveys (Polit & Beck, 2008). The introduction of a qualitative data to further research on the topic would provide a depth and richness to the findings. Participants in a qualitative study are able to report on their opinion on therapeutic benefits of the service such as, support and understanding, the focus of the service, as well suggestions for improvements to the service (Wand, White, Patching, Dixon & Green, 2011).

A qualitative dimension to further research would allow the researcher to obtain narrative data from other service providers about their thoughts, feelings and beliefs of the Mental Health Nurse Practitioner Service and their perspectives of the quality of the Mental Health Nurse Practitioner Service and the impact it has on their service provision and work environment. Of great value would be to survey consumers presenting to the Accident and Emergency Department with Mental Health Presentations. This would provide a consumer perspective to the study focussed on patient satisfaction with the service provided by the Mental Health Nurse Practitioner Service.

By its design qualitative research requires the researcher to engage with the participants. The level of engagement may be varied depending on the way data is to be collected. An opportunity to educate service providers and consumers alike exists through the use of narrative data collection. The process of conducting face to face interviews allows for interaction which is reciprocal and provides an opportunity for educating and learning to take place for both the participants and the researcher.

5.6 Conclusions

In conclusion the study findings provide benchmark data which is consistent with the literature. For example a high percentage of mental health presentations to the Accident and Emergency Department of the Whyalla Hospital are experiencing situational crisis and/or suicidal ideation, complicated by substance use issues. This information may be valuable for future service planning and the development of mental health services both in the Accident and Emergency Department as well as in community based services.

It is evident that due to the limitations of the study further, more robust research on the topic would be beneficial. This could be achieved by a longer study encompassing a larger sample size as well as more detailed data. Further research should include the collection and analysis of qualitative data to provide depth and richness to findings, as well as facilitate a more thorough evaluation of the Mental Health Nurse Practitioner Service.

Engagement with the Mental Health Nurse Practitioner Service provides an opportunity for specialised comprehensive mental health assessment, timely therapeutic engagement and early intervention commenced in the Accident and Emergency Department. The high rate of consultation liaison from the Accident and Emergency Department by the Mental Health Nurse Practitioner (Candidate) as well as referral to community based mental health services is consistent with enhanced care co-ordination. Follow-up care is accessed by 20% of presentations by continuing to engage with the Mental Health Nurse Practitioner session limited outpatient service.

A study of two models of care for mental health presentations at a regional hospital emergency department has revealed that the Mental Health Nurse Practitioner Service based in the Whyalla Hospital Accident and Emergency Department is well received by other staff and has a positive impact on the outcomes of mental health presentations. This is evidenced by decreased

admission rates, decreased unplanned admissions within 28 days which is both clinically significant and cost effective.

Mental Health Nurse Practitioner positions have only been implemented in country South Australia since January 2009. This study has provided an evaluation of one of those positions and has shown clinically significant and cost effective positive outcomes for consumers, as a result of the service provided by the Mental Health Nurse Practitioner (Candidate). Mental Health Nurse Practitioners and Mental Health Nurse Practitioner (Candidates) must be proactive in evaluating their roles to accumulate evidenced of the efficacy of the roles and improve the visibility of Mental Health Nurse Practitioners providing service as part of an integrated mental health service.

It is imperative health care service providers and policy makers are able to access a body of knowledge that through positive evaluations, advocates the advantages of Mental Health Nurse Practitioner Roles. Where by ensuring funding, employment and professional opportunities continue to be made available and support for Mental Health Nurse Practitioner roles continues to be developed and sustained.

Most importantly Mental Health Nurse Practitioners are able to provide specialised, comprehensive mental health assessment and intervention for consumers in country South Australia, where there were previously gaps in mental health service delivery. Mental Health reform is resulting in the development of new mental health services and initiatives across South Australia. Mental Health Nurse Practitioners are privileged to be at the forefront of these changes and are able to provide leadership and reduce the stigma associated with mental health through research and education.

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Appendix 1 – Example Data Collection Tool

Data Collection Sheet 1

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Number of clinical records reviewed										
Waiting time in A&E from triage in minutes										
Admission post review										
Referral to Community Mental Health Team from A&E										
Referral to community based services not the Community Mental Health Team from A&E										
Attendance to session limited MHNPC outpatient service										
Unplanned re-presentation to A&E within 28 days										
Consultation/liaison with other health service providers										
Co morbid drug/alcohol issues evidenced										
Referral source to MHNPC										
Primary reason for presentation										

Appendix 2 – De-identified Master Sheet

Allocated Number	Medical Record Number
1.	Xxx
2.	Xxx
3.	Xxx
4.	Xxx
5.	Xxx
6.	Xxx
7.	Xxx
8.	Xxx
9.	Xxx
10.	Xxx
11.	Xxx
12.	Xxx
13.	Xxx
14.	Xxx
15.	Xxx
16.	Xxx
17.	Xxx
18.	Xxx
19.	Xxx
20.	Xxx
21.	Xxx
22.	Xxx
23.	Xxx
24.	Xxx
25.	Xxx
26.	Xxx
27.	Xxx
28.	Xxx
29.	Xxx
30.	Xxx
31.	Xxx
32.	Xxx
33.	Xxx
34.	Xxx
35.	Xxx

Appendix 3-Human Research Ethics Approval Letters - X3

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RESEARCH BRANCH
RESEARCH ETHICS AND COMPLIANCE UNIT

SABINE SCHREIBER
SECRETARY
HUMAN RESEARCH ETHICS COMMITTEE
THE UNIVERSITY OF ADELAIDE
SA 5005
AUSTRALIA
TELEPHONE +61 8 8303 6028
FACSIMILE +61 8 8303 7325
email: sabine.schreiber@adelaide.edu.au
CRICOS Provider Number 00123M

5 September 2011

Associate Professor A Wilson
Discipline of Nursing

Dear Associate Professor Wilson

PROJECT NO: H-162-2011
An evaluation of mental health services in the Whyalla Hospital accident and emergency department: a comparison of a new and old model of care

I write to advise you that the Human Research Ethics Committee has approved the above project. Please refer to the enclosed endorsement sheet for further details and conditions that may be applicable to this approval.

The ethics expiry date for this project is: 31 March 2012

Please note that any changes to the project which might affect its continued ethical acceptability will invalidate the project's approval. In such cases an amended protocol must be submitted to the Committee for further approval. It is a condition of approval that you immediately report anything which might warrant review of ethical approval including (a) serious or unexpected adverse effects on participants (b) proposed changes in the protocol; and (c) unforeseen events that might affect continued ethical acceptability of the project. It is also a condition of approval that you inform the Committee, giving reasons, if the project is discontinued before the expected date of completion.

A reporting form is available from the Committee's website. This may be used to renew ethical approval or report on project status including completion.

Yours sincerely

PROFESSOR GARRETT CULLITY
Convenor
Human Research Ethics Committee

Human Research Ethics
Committee

ABN 97 643 356 590

Level 10, CitiCentre
11 Hindmarsh Square
Adelaide SA 5000

Mrs Debra Papoulis
Country Health SA
102 Nicolson Avenue
WHYALLA SA

PO Box 287
Rundle Mall
Adelaide 5000
Telephone (08) 8226 6064
Facsimile (08) 8226 7088

Dear Mrs Papoulis,

**Re: The Mental Health Nurse Practitioner in Whyalla Hospital Accident
and Emergency Department**

HREC PROTOCOL NO: 453/06/2014

Thank you for responding to the issues raised by the SA Health Human
Research Ethics Committee in relation to the above application. The
Committee reviewed your response at its meeting on 3rd August 2011.

I am pleased to advise that ethics approval has been granted to your project.

Please note that this approval is granted subject to the following standard
conditions:

- The research must be conducted in accordance with the 'National
  Statement on Ethical Conduct in Human Research.'

- A progress report, at least annually, must be provided to the Committee.

- When the project is completed, a final report must be provided to the
  HREC.

- The HREC must be notified of any complaints by participants or of adverse
  events involving participants.

- The HREC must be notified immediately of any unforeseen events that
  might affect ethical acceptability of the project.

- Any proposed changes to the original proposal must be submitted to and
  approved by the HREC before they are implemented.

68

- If the project is discontinued before its completion, the HREC must be advised immediately and provided with reasons for discontinuing the project

Approval is given for a period of three (3) years only, and if the research is more prolonged than this, a new submission will be required.

Should you have any questions or concerns, please contact Sarah Lawson, Executive Officer of the HREC, Tel 8226 6367 or E-mail hrec@health.sa.gov.au

We wish you well with your research.

Yours sincerely,

Andrew Alston
A/CHAIRPERSON
HUMAN RESEARCH ETHICS COMMITTEE

5/8/2011

8th August 2011

RE: An evaluation of mental health services in the Whyalla Hospital Accident and Emergency Department: a comparison of a new and old model of care
REFERENCE NO: 04-11-404
Dear Debra

Thank you for submitting your research project *An evaluation of mental health services in the Whyalla Hospital Accident and Emergency Department: a comparison of a new and old model of care* on the 4th August 2011 for ethical consideration.

At our last meeting your application was assessed and I am pleased to inform you that this proposal has met with support and that the committee has decided that your application be recommended. The duration of approval is from 4th August 2011 until the expected completion date of your project indicated as 30th October 2011.

However, while the committee has approved your study, they raised methodological concerns. Firstly, they strongly recommended that you reframe your proposal *from* an 'evaluation' (comparing the old model with the new model) *to* an 'examination', which includes a limited audit of waiting times, admission rates (etc.), as well as your professional and personal reflections/observations on the implementation of the new service. Their rationale is that an evaluation requires an **independent** assessment and you cannot provide this of your own work. Secondly, the committee asked that you consider the following:
1. What would happen if it was found that, rather than presenting a case to abandon the 'old' model in preference for the 'new' model, your project found the best approach was based on partnership, that is, MHNP working **with** GPs?
2. While it has been suggested that you expect to encounter very low numbers of Aboriginal and/or Torres Strait Islander people, the new MHNP service may contribute to identifying where Aboriginal and/or Torres Strait Islander people go for mental health services and how the new MHNP service could be made more accessible to Aboriginal people.

In accordance with the NH&MRC guidelines, *National Statement on Ethical Conduct in Research Involving Humans*, we require at regular periods, at least annually, reports from principal researcher(s).
If you require any further information please do not hesitate to contact the Executive Officer or myself. We wish you well with the project and look forward to receiving a copy of your report.

Sincerely yours

MS LUCY EVANS
CHAIRPERSON
Ref: Proposal/Approval/8thAug201

Appendix 4 – Application/Approval Whyalla Hospital

Whyalla Hospital & Health Services

Data Application Form

Government of South Australia
SA Health

Date Requested: **05/08/2011**   Required by: 12/08/2011

Requested by: DEBRA PAPOULIS Position/Agency NPC/CHSA

Data Requested:

Brief description of what data / report is required:
Access to the medical records of mental health presentations to the A+E department from 1/2/2011 – 31/8/2011. To Review/audit medical records for the purpose of collecting deidentified data to be included in research study.

Is this request associated with Clinical Trials / Clinical Audit / Survey / Questionnaire
Yes ☑ If yes state title of project. A Comparative study of No ☐
mental health services in the A+E dept.
Has a Research Proposal Form (1-045) or Quality Activity Form (1-032) been completed and approved by Whyalla Hospital & health Services Executive Committee?

Yes ☑ Date Approved. Awaiting Approval .... No ☐
Dept of Health HREC meeting on the 8/8/2011.
What is the purpose / intended use of this data / report?
Retrospective audit to evaluate the MH service provided in the A+E department by the MH nurse practitioner candidate.

Fields required in report: (eg: MRN, Name, Address, Admission date, Diagnoses etc.)
Waiting times from triage to MH assessment: Representations in 28 days: Admission rates: Co-morbid drug and alcohol use: Referrals: Consultation liaison:

Definition of Scope of Data / Query Parameters: (What data to specifically include or exclude. Eg: Age ranges, deceased persons, diagnoses types, Admission types, etc).
Adults over 18 years of age: Presentations to A+E with primary reason being MH issues.

Time period to report: From: 01/02/11 **To:** 31/08/11

Format required: PDF ☐   EXCEL ☐ No. of records returned ONLY

Any other instructions / directions:
All data collected will be deidentified. No identifiable data will be used in the study:

Patient Identified data: (Names, addresses, DOB etc)

Data authorised for release to above staff member by Manager / Supervisor.

Name: Lisa Campbell   Signature: Date: 5/8/2011

71

Appendix 5 –Confidentiality Contract

An evaluation of mental health services in the Whyalla Hospital Accident and
Emergency Department: a comparison of a new and old model of care.

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Government of South Australia
SA Health

Confidentiality Contract

I Ms Kathryn Cronin, Network Senior Mental Health Clinician agree
to keep all information accessed confidential and not to access any
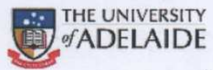information other than the data required to conduct the audit.

Signed   ...   Date... 14/11/2011........

Appendix 6 – Letter of Confirmation

An evaluation of mental health services in the Whyalla Hospital Accident and
Emergency Department: a comparison of a new and old model of care.

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Government of South Australia
SA Health

Letter of Confirmation

I Ms Kathryn Cronin, Network Senior Mental Health Clinician have
on this day undertaken an audit of the data collected by the
researcher to ensure the maintenance of rigour during data
collection by the researcher

Signed .... Date... 14/11/2011.......