Chapter 1   Introduction

1.1 Introduction

Healthcare is changing dramatically due to the advancement of medical sciences and technology, the abundance of clinical research and the higher demands of consumers. As a key profession of healthcare, these changes represent a significant challenge to the nursing profession and nursing education in terms of maintaining the quality of services and preparing nurses for the future (MacLeod & Farrell 1994; Aiken, Sloane & Sochalski 1998; International Council of Nurses 1999; Long 2004; Bartels 2005; Covaleski 2005; Candela, Dalley & Benzel-Lindley 2006). Effective systems for regulation, education, research and management are key to strengthening the contribution of nursing services in order to achieve the required improvement in health outcomes (WHO 2002a). In response, nursing education is increasingly being restructured in many countries to prepare nurses for contemporary and future demands of healthcare (Spitzer 1998; Alderman 2001; Booth 2002).

Many countries around the world have realised the importance of higher education for nurses, and most countries are moving in this direction. The World Health Organisation Global Advisory Group in 1992 recommended that, when appropriate, countries should move basic nursing education to university standards (Modly, Zanotti, Poletti & Fitzpatrick 1995). This view was supported by many countries around the world, moving from hospital-based apprenticeship training to university-based education, enabling the acquisition of bachelor degree education as a minimum preparation for beginning professional nursing practice (Royal College of Nursing 1997; Pearson & Peels 2001b; Zabalegui, Macia, Marquez, Ricoma, Nuin, Mariscal, Pedraz, German & Moncho 2006; AACN 2007; CNA 2007). It is evident that bachelor of nursing (baccalaureate-nursing) graduates acquire unique skills as clinicians and demonstrate an important role in the delivery of safe patient care (Goode, Pinkerton, McCausland, Southard, Graham & Krsek 2001; McKinley,

Aitken, Doig & Liu 2001; Aiken, Clarke, Cheung, Sloane & Silber 2003; AACN 2005, 2007).

In Sri Lanka, pre-registration nursing education is currently based on a three-year certificate level nursing program in schools of nursing that are attached to the Ministry of Health and four-year bachelor programs in nursing at universities. The government policy is that nursing education should be based on the four-year undergraduate nursing program (Ministry of Health 1992; Ministry of Health Nutrition and Welfare 2002; University Grant Commission 2007). In response, the University Grant Commission of Sri Lanka has approved four-year Bachelor of Science in Nursing programs (BScN) in three universities (University Grant Commission 2007). In addition to the proposed affiliation of existing schools of nursing to the university sector, several other universities including the Open University proposed to establish similar programs in the future (de Silva 2004; Dharmaratne, Goonasekara & Fernando 2006). However, there is no evidence to support the contention that existing and proposed undergraduate nursing curricula in universities are based on a common philosophy or an acceptable needs assessment. A lack of separate nursing council and national nursing competency standards are major challenges to develop a national level framework for nursing education in Sri Lanka.

Although Sri Lanka has achieved a relatively high health status given its low level of spending on healthcare services, a large segment of the population still experiences vital health problems at all stages of life, mainly due to lifestyle and the demographic changes accompanying the epidemiological transition (Jayasekara 2001; Jayasekara & Schultz 2007). Thus, it is essential that nursing curricula reflect the existing and future needs of healthcare in Sri Lanka, while focusing on rapidly changing technology and healthcare interventions. However, there is no research that has focused on nursing education in Sri Lanka. Some reported studies have been conducted in small-scale evaluative formats within a single school of nursing and focused only on a limited number of program outcomes (Ministry of Health Nutrition & Welfare 2002). In this context of nursing education, the development of a conceptual framework that uses evidence to underpin undergraduate nursing curricula is a crucially important step to improving nursing education and nursing practice in Sri Lanka.

1.2 Purpose of the study

The overall purpose of this study was to develop an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka.

1.3 Aims

This study sets out to:

- Identify the nature and role of conceptual frameworks shaping nursing curricula;

- Synthesise the evidence on effectiveness, appropriateness and feasibility of current curricula models/conceptual frameworks, and their potential applicability in Sri Lanka;

- Analyse current trends and issues in global, regional (South-East Asia) and local (Sri Lanka) healthcare, and nursing education;

- Develop a conceptual framework using the above findings and views and opinions of key stakeholders of nursing education in Sri Lanka.

1.4 The process

The process of developing the conceptual framework involved several steps:

1. Analysing nursing and educational theories and concepts to understand the nature of conceptual frameworks within nursing curricula;

2. Conducting comprehensive systematic reviews to establish: (i) the effectiveness and appropriateness of undergraduate nursing curricula, and (ii) the feasibility and appropriateness of introducing the nursing curricula from developed countries into developing countries;

3. Analysing current trends and issues in global, regional and Sri Lankan healthcare, and nursing education to capture the concepts that should be addressed in the conceptual framework;

4. Developing a draft conceptual framework using the above findings;

5. Evaluating the feasibility and appropriateness of the draft conceptual framework in Sri Lanka, getting feedback and opinions from the key stakeholders of nursing profession;

6. Developing an evidence-based conceptual framework that is feasible and meaningful in Sri Lankan context.

1.5 Definitions

1.5.1 Conceptual framework in nursing curricula

The term 'conceptual framework' is synonymous with the terms conceptual model, conceptual system, paradigm, theoretical framework, curriculum theory/themes (Bevis 1989; Sohn 1991; Fawcett 1995; Chinn & Kramer 1999). Boland (1998 p.135) defines the role of a conceptual framework in a nursing curricula in providing "faculty with a means of conceptualising and organising the knowledge, skills, values, and beliefs critical to the delivery of a coherent curriculum that facilitates the achievement of the desired curriculum outcomes".

1.5.2 Undergraduate nursing curricula

The term 'undergraduate' is synonymous with the terms bachelor or baccalaureate. The present study defines undergraduate nursing curricula as the formal plan of study that provides the philosophical underpinnings, goals, and guidelines for the delivery of pre-registration nursing programs at universities (Quinn 1994; Keating 2006).

1.6 Theoretical framework

The process of developing a conceptual framework used an evidence-based approach derived from the Joanna Briggs Institute's (JBI) model of evidence-based healthcare (Pearson, Wiechula & Lockwood 2005). The term evidence is used in this process to mean the basis of belief; the substantiation or confirmation that is needed in order to decide a claim or view should be trusted (Pearson 2004; Pearson, Wiechula & Lockwood 2005). This evidence-based approach generated knowledge and evidence to effectively and appropriately meet the needs of developing a conceptual framework in ways that are feasible and meaningful to a Sri Lankan context. The theoretical and conceptual underpinning of the meanings of the terms *feasibility* (extent to which an activity is physically, culturally or financially practical or possible within a given context), *appropriateness* (the extent to which an activity fits with or is apt in a situation)*, meaningfulness* (relates to the personal experience, opinions, values, thoughts, beliefs, and interpretations of patients or clients) and *effectiveness* (the extent to which an intervention, when used appropriately, achieves the intended effect) were as the theoretical framework of the study (Pearson *et al.* 2005).

In addition, the JBI method of systematic reviews was used to synthesise the evidence on effectiveness, appropriateness and feasibility of current curricula models/ conceptual frameworks, and its potential applicability in Sri Lanka. Focus groups were used to seek feedback on the draft conceptual framework from key stakeholders in Sri Lanka. Focus groups are the most appropriate method to generate meaningful opinions, suggestions and feedback (Krueger & Casey 2000; McLafferty 2004). In fact, focus groups have clear potential where the researcher is interested in processes whereby a group jointly constructs meaning about a topic.

1.7 Summary of the thesis

Chapter 2: Literature reviews

The second chapter presents four detailed literature reviews. The topics were:

1. **Conceptual frameworks in nursing curricula:** This section examines the theoretical assumption of the conceptual framework for nursing and nursing education.

2. **Global and regional trends and issues in nursing services and education**: This section analyses the global and regional trends and issues of nursing services and nursing education.

3. **Healthcare in Sri Lanka:** This section examines the health status of Sri Lankans and trends in healthcare provision in Sri Lanka and concludes with policy recommendations to improve the health status of Sri Lankans.

4. **Nursing service and education in Sri Lanka:** This section explores the evolution of nursing services and nursing education in Sri Lanka and its impact on developing professionalism in nursing.

Chapter 3: Systematic reviews

This chapter describes two systematic reviews on nursing curricula.

1. **A comprehensive systematic review of evidence on the effectiveness and appropriateness of undergraduate nursing curricula**

This section presents the best available evidence on the effectiveness and appropriateness of undergraduate nursing curricula. The review considered research papers that addressed the effectiveness and appropriateness of different undergraduate nursing curricula. Participants of interest were undergraduate nursing students, nursing staff and healthcare consumers. Nursing staff outcomes, consumer

outcomes, and system outcomes (e.g. competency, satisfaction, critical thinking skills, health care consumer rights and cost effectiveness) that measure the impact of undergraduate nursing curricula were considered in the review.

2. **The feasibility and appropriateness of introducing the nursing curricula from developed countries into developing countries: a comprehensive systematic review**

This section describes the best available evidence on the feasibility and appropriateness of introducing nursing curricula from developed countries into developing countries. In this review, participants of interest were all levels of nursing staff, nursing students, health care consumers and health care administrators. Outcomes of interest that are relevant to the evaluation of undergraduate nursing curricula were considered in the review including cost effectiveness, cultural relevancy, adaptability, consumer satisfaction and student satisfaction.

Chapter 4: Developing a draft conceptual framework

This chapter provides an overview of the process of developing the draft conceptual framework and presents the framework as a model. The draft conceptual framework was developed using findings of the systematic reviews and critical reviews of literature.

Chapter 5: Evaluating the appropriateness and feasibility of draft framework in Sri Lanka: methodology and method

This chapter describes the theoretical framework of the study and focus group method used to evaluate the draft conceptual framework.

Chapter 6: Feasibility, meaningfulness and appropriateness of the draft conceptual framework: findings of focus group discussions

This chapter presents the findings of the focus group discussions. The major concepts and pre-defined sub-concepts and sub-themes are explored.

Chapter 7: An evidence-based conceptual framework: discussion

This chapter describes the key findings of the focus group discussions and its impact on developing a final conceptual framework for undergraduate nursing curricula in Sri Lanka.

Chapter 8: Towards a reconsideration of nursing curricula in a developing country: conclusion and recommendations

This chapter concludes the findings of the study and provides the policy recommendations.

1.8 Conclusion

This chapter has described the background of the study and briefly summarised the international and local status of nursing education and the rationale for developing an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka. This chapter also introduced the process of how the conceptual framework was developed and summarised the contents of each chapter of this thesis.

Chapter 2   Literature review

2.1 Introduction

This chapter sets out to review the relevant, contemporary literature to situate the study and to:

- overview of the background to the study,

- identify underlying theoretical concepts related to the research questions, and

- analyse current trends and issues relevant to the study area.

Four substantive areas are examined: (1) the role of conceptual frameworks in nursing curricula, their theoretical assumptions and the current trends internationally; (2) an analysis of major global and regional concepts, trends and issues in nursing education; (3) an examination of the health status of Sri Lankans and of demographic, epidemiological and economic data, and an overview of health expenditure and current trends and issues in the Sri Lankan healthcare system; and (4) an exploration of the current situation of nursing services and nursing education in Sri Lanka and its impact on developing professionalism in nursing.

2.2 Conceptual frameworks in nursing curricula

2.2.1 Introduction

This literature review was conducted to describe the various types of nursing curricula, with a special focus on the role of conceptual frameworks in shaping curricula. The purpose of this review was to examine the theoretical assumption of the conceptual framework and the existing situation and trends internationally. The results of the review were used to inform the development of a conceptual framework for undergraduate nursing curriculum in Sri Lanka.

2.2.2 Search strategies

The search aimed to find both published and unpublished studies and text written in the English language. An initial limited search of MEDLINE and CINAHL was undertaken, followed by an analysis of the text contained in the titles, abstracts, and index terms used in the studies retrieved from this initial search. A second search using all identified keywords and index terms was then undertaken. Thirdly, the reference lists of all identified reports and articles were searched for additional studies. Hand searching of relevant journals such as the Journal of Nursing Education, Nurse Educator, and Nurse Education Today, and was undertaken to reveal any additional literature.

2.2.2.1 Bibliographic databases
The following bibliographic databases were searched:

MEDLINE (1966 to March 2006)
CINAHL (1982 to March 2006)
ERIC (to March 2006)
Expanded Academic Index (to March 2006)
Current Contents (to March 2006)
Embase (to March 2006)
The search for unpublished studies included:

Dissertation Abstract International (to March 2006)
Index to Thesis (to March 2006)

2.2.2.2 Books and reports

The following South Australian university library catalogues were searched.

The University of Adelaide

University of South Australia

Flinders University

2.2.2.3 Professional websites

International Council of Nurses <http://www.icn.ch>

World Health Organisation <http://www.who.int/en/>

National League for Nursing <http://www.nln.org>

2.2.2.4 General internet search

Google and Yahoo

2.2.3 The nature of curriculum

The term curriculum, which is used to describe a plan and design of an educational program, was first used in Scotland as early as 1820 (Dillard & Laidig 1998). The etymological definition of the term curriculum is from the Latin word *currere*, which means "to run". Over time, this has been translated to mean "a course of study" (Grumet & Pinar 1976; Wiles & Bondi 1989). The curriculum is the single most important concept in educational delivery, encompassing all the activities normally included under the term of education and training (Quinn 1994). In the past three decades, nursing education has been greatly influenced by the work of Em Olivia Bevis, who reflected allegiance to the Tyler behaviourist paradigm (Dillard & Laidig 1998). In Tyler's view, curriculum is a cumulative process: over the course of the schooling years, educational experiences accumulate to exert profound changes in the learner, *"in the way water dripping upon a stone wears it away"* (Tyler 1949 p.83). The approach is subject-centred and students gain mastery of predetermined subject matter. In the 1960s and 1970s, most nursing curricula were based on the Tyler Curriculum Development Model, and the State Boards of Nursing in the USA eventually based criteria for approval of nursing programs on this model (Bevis 1989; Bevis & Watson 1989). In 1989, Bevis defined curriculum as *"the totality of learning activities that are designed to achieve specific educational goals"* (Bevis 1989, p.8). However, nursing education has moved from Tylerian / behaviourist paradigm to the human interaction and active learning paradigm (Dillard & Laidig

1998; Metcalfe 1998), and most definitions of curriculum have changed accordingly. Recently, Keating (2006 p.160) defined a curriculum as:

> *…the formal plan of study that provides the philosophical underpinnings, goals, and guidelines for the delivery of a specific educational program.*

Dillard and Laidig (1998 p.71) summarised the common components of a curriculum as including the following:

- Pre-selected goals/outcomes to be achieved
- Selected content with specific sequencing in a program of study
- Process and experience to facilitate learning
- Resources used
- The extent of responsibility assumed by the teacher and learner for learning
- How and where learning is to take place

The purpose of curriculum development in nursing is to meet students' needs and the needs of the profession by ensuring that the curriculum maintains educational and professional standards, while reflecting the current and future demands of healthcare (Keating 2006). In determining the expected educational outcomes of a curriculum, Banta (1996, cited by Boland 1998 p.135) proposed the following questions that the faculty must ask themselves:

- *What should students know and be able to do on completion of their educational experience?*
- *What competencies in terms of knowledge, skills, and attitudes, must students possess to successfully demonstrate the desired outcomes?*
- *What learning experiences will facilitate students' attainment of these competencies?*
- *How will the attainment of these competencies and the resulting outcomes be evaluated?*

Answers to these questions provide guidance to the development of a curriculum framework.

The curriculum of a nursing program typically consists of a philosophy and mission statement, an organisational or conceptual framework, a list of outcomes, competencies or objectives for the program and individual courses, course outlines and syllabi, educational activities and evaluation methods (Dillard & Laidig 1998). In addition, most nursing curricula indicate the essential content of nursing practice

and application in clinical settings (Kupperschmidt & Burns 1997). The conceptual framework, which is a crucially important part of the curriculum provides faculty with a means of delivering an organised curriculum.

2.2.4 The nature of a conceptual framework

Conceptualisation has existed since people began to think about themselves and their surroundings, and everything that a person experiences is filtered through the cognitive lens of some conceptual frame of reference (Fawcett 1995). The term 'conceptual framework' is synonymous with the terms conceptual model, conceptual system, paradigm, theoretic framework, curriculum theory and themes (Bevis 1989; Sohn 1991; Fawcett 1995; Chinn & Kramer 1999). Fawcett (1995 p.2) defined a conceptual framework as:

> *…a set of abstract and general concepts and the propositions that integrate those concepts into a meaningful configuration*

Similarly, Chinn and Kramer (1999 p.252) defined the conceptual framework as a logical grouping of related concepts or theories, usually created to draw together several different aspects that are relevant to a complex situation such as a practice setting or an educational program.

Conceptual frameworks for nursing emerged since Nightingale's first literature 'Notes on Nursing' (1859) (Fawcett 1995). Fawcett (1995) discussed the historical evaluation of conceptual models in nursing, and recognised several nursing scholars who contributed significantly to the development of conceptual models in the nursing profession (e.g. Rogers 1970, 1990; King 1971, 1990; Orem 1971, 1991; Peterson 1977; Hall 1979; Johnson 1980, 1990; Neuman 1989). This literature review revealed that several nursing scholars have had a significant influence on nursing education, especially the evaluation of conceptual frameworks in nursing curricula [e.g. (Torres & Yura 1974; Hall 1979; Santora 1980; Quiring & Gray 1982; Bevis 1989; Bevis & Watson 1989; Sohn 1991; Boland 1998; McEwen & Brown 2002; Webber 2002)] The conceptual framework of a curriculum presents vision to a discipline's scope of knowledge (Daggett, Butts & Smith 2002). As Boland (1998 p.135) states:

> *The conceptual framework provides faculty with a means of conceptualising and organising the knowledge, skills, values, and beliefs critical to the delivery of a coherent curriculum that facilitates the achievement of the desired curriculum outcomes*

The conceptual framework for curriculum serves several purposes. The rationale for constructing a conceptual framework for curriculum is to systematically design a mental picture that is meaningful to the faculty and students when determining what knowledge is important to nursing and how that knowledge is defined, categorised, sequenced, and linked with other knowledge (Boland 1998). A conceptual framework provides a distinctive frame of reference and a logical, systematic structure, and a rationale for the scholarly and practical activities (Bevis 1989; Fawcett 1995). The conceptual framework is the keystone, and the constitution of the curriculum, and provides guidelines and fundamental rules for making all curriculum decisions such as objectives, content, implementation, and evaluation (King 1986; Bevis 1989). It also provides a logical structure for cataloguing and retrieving knowledge that is essential to the process of teaching and learning (Boland 1998).

Most nursing curriculum frameworks are based on the meta-paradigm of nursing – person, health, environment and nursing, and may contain additional concepts and threads (Fawcett 1995; Boland 1998; McEwen & Brown 2002). In general, the conceptual framework should reflect both the philosophical beliefs of the faculty and the meta-paradigm of nursing (Bevis 1989; Kupperschmidt & Burns 1997; Quinn 2000). The concepts and theories selected to include in the conceptual framework are derived from the philosophy (Boland 1998). Therefore, the conceptual framework offers a further explanation of the philosophy statement of a curriculum.

2.2.5 The nature of philosophy

The term philosophy comes from the Greek word "philo-sophia", which means *love of wisdom* (Csokasy 1998). The definition of philosophy is famously a difficult matter; however the Encyclopedia Britannica (2003 cited in Keating 2006 p.169) defines philosophy as follows:

> *…the critical examination of the grounds for fundamental beliefs and an analysis of the basic concepts employed in the expression of such beliefs*

There are three basic components of philosophy - metaphysics, epistemology, and axiology- and historically these components have been interpreted in different ways

by philosophers (Csokasy 2002). Csokasy (2002 p.32) defines the three components of philosophy as such:

> *Metaphysics seeks to answer the basic questions of reality and what is real and true; epistemology is the study of nature, the validity of knowledge, and how truth differs from opinion; and axiology seeks to describe that which is ethical, logical, and of value*

As Fawcett (1995) emphasises, a philosophical statement as part of a curriculum should encompass ethical claims about what the members of the discipline should do, ontological claims about the nature of human beings and the goal of the discipline, and epistemic claims dealing with how knowledge is developed. The philosophies, models and theories of a discipline are theoretical structures that address the central concepts of the discipline (Alligood & Tomey 2002). In nursing education, the philosophy provides a framework for discussion of answers to value-laden questions related to teaching and learning, and a guide to all activities of the curriculum (Csokasy 1998). In addition to the congruency of the philosophy of a nursing curriculum with the philosophy of the parent institution and its sub-divisions, many societal and political influences should be considered when developing and implementing a curriculum (Csokasy 1998; Keating 2006). Recent nursing education claims philosophy as one part of curriculum development, however cautions against a heavy reliance on philosophy as a framework (Csokasy 1998). As Bevis (1989) states, philosophy alone is a weak cornerstone for curriculum development, however in conjunction with other components of the curriculum framework it reinforces the curriculum design.

2.2.6 Conceptual frameworks in nursing curricula

Historically most nursing curricula over the world have been shifted from traditional nursing curriculum based on the medical model (medical, surgical, paediatric, obstetric and psychiatric nursing) to a curriculum based on nursing frameworks (Sohn 1991). Many nursing leaders wishing to develop nursing as an independent profession suggested that nursing needed its own framework to guide nursing education, practice and research (Rogers 1989). During the 1960s-1970s, the nursing profession began to make considerable effort to develop nursing theories (Chinn 1983). The resulting explosion of knowledge made nursing educators aware of the inadequacy of traditional nursing curricula based on the medical model and has led to

the development of nursing curriculum frameworks that provide unifying concepts across the curriculum.

Such a unified curriculum framework usually consisted of an organised set of borrowed concepts or nursing models or a combination of both (Sohn 1991). During the nursing theory development stage in the 1960s-1970s, the development of nursing curriculum frameworks showed that nurse educators have used concepts and theories from related disciplines (e.g. Maslow's hierarchy of basic human needs, Erickson's developmental staging, Selye's physiological stress adaptation) as the foundation of nursing curricula (Webber 2002). Despite the importance of knowledge generated by other disciplines, the nursing profession began to develop its own curriculum frameworks via the emergence of the nursing process, which began in the late 1950s, and is still used as a major framework in nursing curricula (McEwen & Brown 2002). The nursing process was basically viewed as an approach to ensure quality nursing care, however many nursing programs adopted it subsequently as a curriculum framework (Webber 2002). McEwen and Brown (2002) reported that the nursing process was the most commonly used component for conceptual frameworks for nursing curricula in United States (USA). However, nurse educators argued that the nursing process was a functional process for nursing practice, and does not provide adequate framework for nursing education (Gold, Haas & King 2000; Webber 2002). As a result of the theory development in nursing, most nursing schools adopted a single nursing theory as a unifying curriculum framework (Webber 2002), and Dorothea Orem's Self Care Model and Callista Roy's Adaptation Model were the most frequently used models for nursing curricula (McEwen & Brown 2002). However, the use of a single nursing theory as a framework for nursing programs was problematic (Boland 1998; Webber 2002), and McEwen and Brown (2002) reported that there was a trend away from nursing theorist-based curriculum frameworks. Due to the limitation of the single nursing theory framework, most nursing programs moved toward eclectic models that combine many theories or concepts with a faculty's beliefs (Sohn 1991; Boland 1998; Webber 2002). Despite the argument that the eclectic approach is an impediment to the development of a comprehensive nursing theory, most nursing curricula are still borrowing theories and concepts that best suit the faculty's beliefs and values. Although some nursing curricula have integrated the meta-paradigm of nursing that had been consistently identifiable in most nursing theories, Webber

(2002) agued that the meta-paradigm of nursing does not provide a sufficient foundation for an entire nursing curriculum.

2.2.7 Studies of conceptual frameworks in nursing curricula

Despite the wide applicability of conceptual frameworks in nursing curricula, there has only been limited exploration and discussion of conceptual frameworks in nursing curricula. One aim of this literature review was to identify the existing conceptual frameworks and trends in undergraduate nursing curricula across the world. The literature search identified only seven studies of conceptual frameworks, four of which were conducted in USA. One of the likely reasons for this lack of research is that nursing education worldwide has only recently been delivered in the tertiary sector. The seven studies are summarised in the following paragraphs.

A study examined the conceptual frameworks used in 50 National League of Nursing (NLN) accredited baccalaureate nursing programs in USA during 1972-1973 (Torres & Yura 1974). This study revealed that most baccalaureate nursing programs used a common conceptual framework that consisted of four major concepts of nursing – (1) man, (2) health, (3) society and (4) nursing; however the priorities of these concepts differed among the programs. Hall (1979) conducted a survey among 144-NLN- accredited baccalaureate, and graduate nursing programs to investigate their conceptual frameworks. This study found that 41% of baccalaureate and 32% of graduate nursing programs were based on one or more of six established nursing models, listed by the researcher (Jonson, King, Levine, Orem, Roy and Rogers), and concluded that most nursing programs used their own conceptual frameworks that were consistent with the philosophy of the program (Hall 1979). However, in these two studies, the identified conceptual frameworks or concepts were not ranked according to frequency used or relative importance.

A study conducted in the USA within 61 nursing schools with 122 Baccalaureate and Master degree programs revealed that conceptual frameworks could not clearly be identified in one-third of the programs (Santora 1980). The frameworks listed in the remaining two-thirds included the adaptation framework (n=35, 28.6%), family as an open system (n=16, 13.1%), growth and development (n=23, 18.8%), and multiple frameworks (n=28, 22.9%). The adaptation framework was the most commonly combined framework within the multiple frameworks.

Quiring and Gray (1982) conducted a survey within 144-Baccalaureate nursing programs in the USA to determine which organising approaches (conceptual framework) were commonly used in baccalaureate curricula. The study reported a 61% response rate and that nursing process and health-illness concepts were the most commonly used concepts or threads in nursing curricula, followed by the concepts of life cycle, stress-adaptation, socialization/professionalisation, man-environment, and individual-family-community.

A Canadian nursing study compared that country's 18 undergraduate nursing programs identifying areas of commonality in conceptual frameworks and curricula patterns (Sohn 1991). The study found that the nursing programs had shifted their frameworks from the medical model to nursing models. Among the 12 programs, client systems (n=4), health-illness (n=3), growth and development (n=3), and nursing role (n=2) were used as the primary curriculum organiser (conceptual framework). However, in one-third of programs (n=6), the researcher could not identify a primary organiser (framework) of curricula. Established nursing theorist models were not used as a primary organiser of any program. The study revealed that two-thirds of the programs (n=12) used nursing or borrowed concepts to structure program courses (secondary organiser). Nursing process is most commonly used as the secondary organiser (n=7), followed by growth and development (n=5), human needs (n=3), family (n=3), nursing role (n=2), teaching - learning (n=2), and adaptation (n=2).

A national survey was conducted within the National League for Nursing Accreditation commission (NLNAC) undergraduate nursing programs to examine the usage of conceptual frameworks in their curricula (McEwen & Brown 2002). The response rate was 53.3% (n=160) representing 12.8% of the total NLNAC-accredited nursing schools. The results revealed that the nursing process was the most commonly used component for conceptual framework (55%) in all types of nursing curricula (baccalaureate, associate and diploma). In baccalaureate nursing curricula (n=67) the usage of nursing process was 40% (n=27) followed by bio/psycho/social model 39% (n=26), nursing theorist 31% (n=21) simple to complex organisation 25% (n=17), health promotion 27% (n=18), medical model 15% (n=10), and other models 30% (n=20). It was apparent that both associate degrees in nursing and diploma programs were more likely to use the nursing process as a component of the

framework than baccalaureate programs. The percentage of curricula devoted to meta-paradigm within baccalaureate nursing curricula showed that nursing was the greatest emphasis followed by health, person and environment. Of those pre-listed concepts, critical thinking was the most commonly reported concept in all types of programs (74%), and in baccalaureate programs, it was 87% (n=58), followed by therapeutic nursing interventions 64% (n=43), communication 48% (n=32), and problem solving 37% (n=25). The results also revealed that baccalaureate programs were more likely to stress critical thinking while associate degrees in nursing programs were more likely to stress problem solving.

A national comparative curriculum evaluation study conducted an extensive document analysis of 26 current undergraduate nursing curricula in Australia (Leibbrandt, Brown & White 2005). A comprehensive and flexible curriculum evaluation framework was developed for the analysis of the 26 curricula. This evaluation framework consisted of several parts including the analysis of conceptual frameworks under the section of curriculum orientation. The full report of this study was published in the Australian Universities Teaching Committee's final report (Clare, White, Edwards & Van Loon 2002). Holism was the most commonly used framework of nursing for curricula (27% n=7), followed by primary health care (12% n=3), interactive, partnership, relational (12% n=3), and caring (8% n=2). However, the authors could not identify the curriculum framework in four programs (26 % n=4).

Five of the seven studies included in this review ranked the conceptual frameworks being evaluated according to frequency of use. These results are summarised in Table 1, which also includes the study's location, year conducted and frequency of use of the different conceptual frameworks. The conceptual frameworks are presented in descending order. For example, nursing process was the most frequently used framework in two of the studies (Quiring & Gray 1982; McEwen & Brown 2002).

Table 1: Commonly used conceptual frameworks in nursing curricula from five studies included in this review.

Reference	Santora (1980)	Quiring & Gray (1982)	Sohn (1991)	McEwen & Brown (2002)	Leibbrandt, et al. (2005)
Location	USA	USA	Canada	USA	Australia
Year conducted	1972-1978	~ 1980	1988-1990	~ 2000	~ 2004
Most frequently used CF	Adaptation	Nursing process	Client system	Nursing process	Holistic
	Multiple framework	Health-illness	Health-illness	Bio-psycho-social/Spri.	Primary health care
	Family as open system	Life cycle	Growth & development	Nursing theorist	Interactive, partnership, relational
	Growth & development	Stress-adaptation	Nursing role	Health promotion	Caring
		Socialisation-professinalisation		Simple to complex organization	
Least frequently used CF		Man-environment		Medical model	

2.2.8 Issues and trends of conceptual frameworks

The results of the review revealed that worldwide, nursing programs have shifted their curriculum model from the traditional medical model (the basis for the practice of medicine) to the nursing model that is based on nursing theories. It is also apparent that the usage of nursing theorists' models as a basis of conceptual framework has declined from 41% to 33% in the USA (Hall 1979; McEwen & Brown 2002). Sohn (1991) reported that established nursing models were not used as a primary organiser in any nursing program in Canada. The nursing process is the most commonly used framework for baccalaureate education in USA (Quiring & Gray 1982; McEwen & Brown 2002) while the client system framework (individual, family, community) is being used widely in Canada (Sohn 1991). In Australia, the holistic approach to patient care is the most prominent framework for Bachelor of Nursing curricula (Leibbrandt et al. 2005). A conceptual framework guided

curriculum is an essential requirement for program accreditation of many state boards of nursing in USA (NLN 2003).

Most developing countries are still borrowing concepts and curricula directly from developed countries, mainly due to the global influence of developed countries' nursing. Davis (1999) explored the global influence of American (USA) nursing mainly by considering some cultural and ethical issues. Several studies examined the global influence of US nursing and conflicts between western and eastern cultural values in nursing (Minami 1985; Davis 1999; Hisama 2001; Pang, Sawada, Konishi, Olsen, Yu, Chan & Mayumi 2003). Most international organisations (e.g. World Health Organisation, Canadian International Development Agency, Japan International Cooperation Agency) provide educational assistance for developing countries to improve nursing education in terms of expert assistance, educational materials including literature, and education management models. It is apparent that most developing countries have used developed countries' curricula framework especially the nursing process model as a guiding framework for their curricula.

The results show a complex picture of current usage of conceptual framework within nursing curricula. One major methodological problem of these studies was the inconsistency of meaning and interpretations of terms used in the conceptual frameworks. Some studies noted that the researchers had difficulty in actually identifying the exact conceptual framework being tested (e.g. Sohn 1991, Leibbrandt et al. 2005). Many nursing programs use more than one concept, theme, and model for their frameworks (Sohn 1991). As Sohn (1991) noted, it is difficult to recognise how those identified concepts, models or frameworks are actually used in nursing programs to organise the curricula.

There is clearly a need for a systematic and rigorous program of research to examine the effectiveness and appropriateness of different types of conceptual frameworks in nursing curricula. The inconsistency of defined educational strategies is a major constraint for developing high quality nursing educational research.

2.2.9 Conclusion

This chapter discussed the theoretical background of the curriculum and its contents, especially focusing on the conceptual framework. The review also examined the evolution of the concepts of a conceptual framework for nursing and nursing

education and use of a conceptual framework within the curricula. The review indicated the absence of a universally accepted paradigm for nursing curricula. However the review revealed that the conceptual framework should be based on the philosophy of the faculty and it is indented to be congruent with the institutional philosophy. Most conceptual frameworks consist of a meta-paradigm of nursing with additional concepts that may be used to describe a constantly changing health care environment. Despite the lack of research supporting the effectiveness and appropriateness of the nursing process as a foundation of curricula, the nursing process is the most commonly used concept in conceptual frameworks in the USA and most developing countries that were influenced by USA. However, due to the complex nature of the health care environment the majority of nursing curricula have been based on an eclectic approach.

2.3 Global and regional trends and issues in nursing education

2.3.1 Introduction

The major purpose of nursing education is to prepare nurses to meet the health needs of the community. In the current era of globalisation, nursing education is increasingly being restructured to respond to changing healthcare demands. The purpose of this review is to analyse the global and regional trends and issues of nursing education and to capture the major global and regional concepts of nursing education. The results of the review will be used to inform the development of a conceptual framework for undergraduate nursing curricula in Sri Lanka.

2.3.2 Search strategies

The search was limited to English language reports. The literature search was conducted by searching MEDLINE and CINAHL for the period 1976 to 2006. In the next step, a general Internet search was performed (Google and Yahoo). The following key words were used for both searches: nursing education, trends, issues, international, and regional. International and national organisations' web sites were used to obtain information on global and regional trends and issues in nursing education. The reference list of all identified reports and articles was searched for additional studies.

2.3.3 An overview of global health and nursing services

2.3.3.1 Health service reforms

The innovation of nursing practice and education is consistent with the current and expected changes in the healthcare system (Spitzer 1998; Alderman 2001; Booth 2002). Due to the complex nature of the modern healthcare environment, most healthcare systems appear to be unable to appropriately meet their demands, and reforms are taking place around the world. The healthcare reforms are reflected in an increased focus on community healthcare provision, cost- effectiveness of healthcare interventions, quality assurance, and highly skilled, motivated healthcare professionals (Ben-Zur, Yagil & Spitzer 1999; Mawn & Reece 2000; WHO 2002a).

The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015 – form a blueprint agreed to by the world's

countries and all of the world's leading development institutions (United Nations 2005). Of these eight goals, three are directly related to health: (1) to reduce infant and under five mortality by two thirds; (2) to reduce maternal mortality by three quarters; and (3) to halt and reverse HIV/AIDS, tuberculosis and malaria epidemics (United Nations 2005). Nurses have a pivotal role to play in the pursuit of global health and equity, including achieving the MDGs (Ogilvie, Astle, Mill & Opare 2005; ICN 2006). The World Health Organisation (2002a p.3) recommends that nursing and midwifery services contribute to the achievement of these goals in ways such as the following:

- Monitoring poverty, by documenting the prevalence of underweight children;

- Promoting gender equality, by educating girls and women about health;

- Reducing child and maternal mortality, by delivering maternal and child health services;

- Combating HIV/AIDS, malaria and other diseases, by lowering their prevalence through activities directed towards prevention and treatment (WHO 2002a).

Globally, healthcare workers are experiencing increasing stress and insecurity as they react to a complex array of healthcare reforms (Virtanen, Vahtera, Kivimaki, Pentti & Ferrie 2002; WHO 2002a, 2006b). As a result, healthcare workers seek opportunities and job security in dynamic health labor markets that are part of the global political economy (WHO 2006b). In many countries, health sector reform under structural adjustment has restricted public sector employment and limited investment in health worker education, thus leading to an inadequate supply of young graduates (WHO 2006b). Expanding labor markets have intensified professional concentration in urban areas, creating geographical mal-distribution and accelerated international migration of skilled workers (WHO 2006b). In addition, most developing countries face severe shortages of doctors, nurses and midwives, inappropriate skill mixes, and gaps in service coverage (WHO 2006b). Many health workers face poor working environments, lower-level wages, unsupportive management and a lack of social recognition and career development (Mawn & Reece 2000; WHO 2006b).

2.3.3.2 Nursing services

Nurses generally constitute the largest component of health care providers, involving the delivery of nursing care in hospitals and rural health centres, schools, workplaces,

homes, prisons, war zones and refugee camps. In an era of globalisation, nursing services are vital to attaining health and development targets, and to provide a platform for scaling up health interventions aimed at tackling poverty-related diseases (World Bank 1993). Effective systems for regulation, education, research and performance management are key to strengthening the contribution of nursing services in order to achieve the required improvement in health outcomes (WHO 2002a). These reports draw attention to the fundamental need for building the capacity of health professionals, particularly nurses and midwives, to function in a dynamic global environment.

The millennium has heralded amazing challenges and opportunities for the nursing profession and academic institutions responsible for preparing the next generation of nurses (Heller, Oros & Durney-Crowley 2000). The increasing and diverse demands of health care consumers, the dramatic restructuring and re-engineering of health care delivery with new technology, and the advancement of medical and pharmaceutical products and interventions with an emphasis on effectiveness and efficiency make significant challenges for nursing services and educational institutions in terms of maintaining the quality of services and preparing nurses for the future (MacLeod & Farrell 1994; Aiken et al. 1998; International Council of Nurses 1999; Long 2004; Bartels 2005; Covaleski 2005; Candela et al. 2006). These trends and issues are explored by the major international organisations for health and nursing, and in large amounts of literature. As guidance for the international nursing community, the International Council of Nurses (ICN) defines the nature of nursing as follows:

> *Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles* (International Council of Nurses 2006c).

This definition shows the complexity of nursing, including the wide diversity of roles and practices of the professional nurse. Nursing services involve the spectrum of personal and non-personal health services and deal with various aspects of disease prevention, health promotion, treatment, rehabilitation and palliative care through a holistic, interdisciplinary approach (WHO 2002a). The World Health Organisation

(2002a p.29, 30) recommends the following activities as duties of qualified nurses and midwives:

- Assessing and managing physical and mental health and illness;

- Planning, monitoring and ensuring the quality of health care interventions;

- Identifying, advocating, and coordinating a variety of health care systems resources and services required to ensure that health care needs are met and dealt with efficiently and expeditiously;

- Fostering collaboration with other members of the health care team in an environment that is conducive to healing;

- Teaching, providing advice and supervising individuals, families, communities and other practitioners;

- Taking on specialist and advanced practice roles where other practitioners are unavailable;

- Leading and participating in research projects designed to generate evidence for practice and policy improvement.

The growing global shortage of qualified nurses poses an increasingly serious obstacle to the achievement of national and global healthcare targets (Aiken *et al.* 1998; WHO 2002; Clarke & Aiken 2006; International Council of Nurses 2006; WHO 2006b). The reasons for this shortage are complex and stem largely from matters arising from inadequate support systems, current policies and the overall changing healthcare sector context (WHO 2002a). The demand for health services and nurses continues to grow due to ageing populations, increasing population growth rates, and a growing burden of chronic and non-communicable disease (International Council of Nurses 2006). At the same time the supply of available nurses in some countries is declining and is expected to worsen due to an ageing nursing workforce, inadequate funding to support new recruits into the profession and the growth of alternative career opportunities for women (International Council of Nurses 2006). Clarke and Aiken (2006) found that recent studies undertaken in the United States, Canada, England, Switzerland, New Zealand, the Russian Federation, and Armenia all show that the quality of patient care is related to the adequacy of nurse staffing and the quality of the working environment. It is therefore essential that governments and other institutions involved in human resources for health establish effective strategies designed to ensure adequate staffing.

It has been reported that healthcare organisations are 20-fold more complex than the typical general business or manufacturing organisation (Bartels 2005). As a result, some nurses become more involved in managerial tasks than direct patient care (Bowen, Lyons & Young 2000). In addition, Bartels (2005) revealed that the current work place environment can act as an obstacle to performance by preventing nurses from fully translating their abilities, knowledge, and motivation into patient care. In developing countries, nurses struggle on a daily basis with an acute shortage of drugs, safe water, medical equipment and essential supplies such as gloves, bandages and dressings needed to carry out their work (International Council of Nurses 2006). Poor working conditions with long hours and low wages crate a lack of motivation, burnout, and dissatisfaction among nurses (ILO 2000). In 2006, the ICN recommended that governments and international financial institutions should work together to ensure informed macroeconomic decision-making that creates enabling fiscal environments supportive of workforce development and well-functioning, responsive health systems. In addition nurses should have an understanding of how fiscal policies are operationalised and the implications of such policies and practices for health and development (International Council of Nurses 2006).

2.3.4 Global and regional trends and issues of nursing education

Healthcare is labor intensive and requires qualified and experienced staff to function effectively (WHO 2002a). Nursing education is the key force driving change and developing innovative strategies for future nursing practice. In the last three centuries, nursing education systems over the world have been linear, sequential systems characterised by order, authority and simplicity (Ben-Zur *et al.* 1999). However, innovations in nursing education have emerged with new trends in healthcare environment.

2.3.4.1 Moving from a diploma to a baccalaureate-based nursing education

2.3.4.1.1 International perspective

Internationally, the major trend in nursing education is the move from hospital-based apprenticeship training to university-based education, enabling the acquisition of baccalaureate degree education as a minimum preparation for beginning professional nursing practice. In the 1980s and 1990s, there was a positive change in nursing education globally due to healthcare reforms (Lusk, Russell, Rodgers & Wilson-

Barnett 2001). In 1992, the World Health Organisation Global Advisory Group recommended that, when appropriate, countries should move basic nursing education to university standards (Modly *et al.* 1995). The view that nursing education should be based in the university sector was supported in most developed countries.

In 1984, the Federal Government of Australia announced its support for the transfer of basic nurse education into the higher education sector (Sellers & Deans 1999; Lusk *et al.* 2001). In 1989, the Australian Education Council proposed that initial qualification for registered nurse education should be a three-year bachelor degree and this target has been reached (Sellers & Deans 1999). Australia is unique in the world achieving this total transfer of professional nursing education to the university system within a short period (Bennett 1996). In addition, the training of the technical level nurses (e.g. enrolled nurses) was moved from the health sector to the education (TAFE, The Technical and Further Education) sector. In New Zealand, the university education for nurses was advocated in 1973 (Kinross 1984), and implemented in 1996 by upgrading diploma level nursing education to the degree level (Lusk *et al.* 2001). Currently, professional nursing education in Australia and New Zealand is entirely at the Bachelor degree level (Lusk *et al.* 2001; ANMC 2007).

In the United Kingdom, nursing education was transformed by *Project 2000* and all schools of nursing were integrated into higher education institutions in 1995 with the implementation of three-year university based diplomas (Burke 2006). However, the Royal College of Nursing in the UK recommended that the minimum qualification for nursing practice should be a three-year nursing degree (Royal College of Nursing 1997). Nursing education in UK is in the process of completely moving into higher education with university-based diplomas, three-year, and four-year baccalaureate programs, however there has been a considerable delay in achieving full integration into higher education (Lusk *et al.* 2001).

In the United States, the university baccalaureate degree programs for nurses were developed throughout the states during the 1920s and 1930s. In 1995, the American Nurses Association advocated the baccalaureate degree in nursing as the minimum qualification for professional RN licensure examination (American Nurses Association 1995). However, by 2001 North Dakota was the only state that required a baccalaureate degree for entry into nursing practice (Lusk *et al.* 2001). In 2005, only 43 % of nurses held degrees at the baccalaureate level and above (AACN 2005).

There are three routes to becoming a registered nurse in US: a 3-year diploma program typically administered in hospitals; a 3-year associate degree usually offered at community colleges; and the 4-year baccalaureate degree offered at senior colleges and universities (AACN 2007). However, nursing associations are working towards establishing a baccalaureate degree as a basis for pre registration nursing education (Lusk *et al.* 2001; AACN 2007).

In Canada, provincial nursing regulatory bodies initiated the movement for a baccalaureate degree in nursing as the minimal educational requirements for entry into the profession in 1980s (Thobaben, Roberts, French & Tallberg 2005). In 1989, the Canadian Nurses Association recommended that a baccalaureate degree in nursing be the educational entry-to-practice standard for registered nurses in Canada in 2000 (Thobaben *et al.* 2005). By 2005, most provincial and territorial regulatory bodies have achieved this goal, and the majority of new nursing graduates in Canada today hold a degree in nursing (CNA & CASN 2005; CNA 2007).

These developed countries (Australia, New Zealand, UK, USA, and Canada) have many similarities and some differences in nursing education. These countries have a long history of struggle towards the improvement of nursing education, and UK, USA, Canada are moving towards the minimum educational level of a baccalaureate degree for entry into professional nursing practice.

2.3.4.1.2 Regional perspective

There are many different levels of nursing education in the World Health Organisation's (WHO) region varying from certificate level to four-year degree level. However, increasing academic qualifications for nurses seems to be the major trend in most countries.

2.3.4.1.2.1 African region

The African region comprises 46 countries, 29 of which are categorized as least developed countries, and the remainder are all developing countries (WHO 1997). In this region, nursing and midwifery education is still mainly hospital-based, however, it is moving towards university education (WHO 1997; WHO/AFRO 2000). [e.g. Botswana (3-year Bachelor degree), South Africa (4-year Bachelor degree), Tanzania (2-3 year Bachelor degree) (Pearson & Peels 2001)].

2.3.4.1.2.2 Americas

In the Americas, there is a wide diversity in nursing education due to significant economic differences between countries of the region. Most countries in the Americas have at least three pathways for nursing education such as baccalaureate, associate, and diploma (WHO 1997). However some countries in Latin America are moving from diploma to baccalaureate degrees in nursing (e.g. Mexico) (WHO 1997).

2.3.4.1.2.3 Eastern Mediterranean region

In the Eastern Mediterranean Region of WHO, university education for nurses is established or proposed in all states (WHO 1997). In Iran, nursing education has progressed from the apprenticeship style of nurse training to the higher education sector, with the baccalaureate degree required for registered nurses (Nasrabadi, Lipson & Emami 2004). In Iraq, the National Strategy and Plan of Action for Nursing and Midwifery 2003-2008 proposed to establish only 2 levels of nursing educational programs (technical and professional), enabling the attainment of baccalaureate level education for nurses (Ministry of Health-Iraq/ WHO 2003).

2.3.4.1.2.4 European region

Basic education for nurses in Europe varies greatly, and in general Europe has only slowly become part of a worldwide trend of higher education for nurses (Fleming & Holmes 2005). However, several countries in Europe have made changes to nursing education by introducing higher education as a preparation for nursing practice [e.g. Andorra (3-year Bachelor degree), Denmark (3.75 years Bachelor degree), Hungary (4-year Bachelor degree) (Pearson & Peels 2001; Fleming & Holmes 2005)]. In Western Europe the majority of basic nursing programs are integrated within the higher education system, and half of the nursing programs are awarding a Bachelor degree in nursing (Spitzer & Perrenoud 2006). The Bologna Declaration, signed in 1999 by the European ministers of education has enhanced academic recognition, professionalism in nursing education, and graduates' competencies in practice in most European countries by specifying the undergraduate nursing degree as the minimal entrance level for practice and master's and doctoral programs for further career development (Zabalegui *et al.* 2006).

2.3.4.1.2.5 Western Pacific region

In the Western Pacific Region, most of the least developed countries have three-year certificate level nursing programs, while some developed countries (Australia, New Zealand) have already achieved degree level education (ANMC 2007). Most countries of this region (e.g. China, Japan, Philippines, Malaysia, Hong Kong, Republic of Korea, Singapore, Taiwan) have established university education for nurses during 1980s-2000s (ANMC 2007), however the proportion of degree-qualified nurses is very small (e.g. 1% in China) (Chan & Wong 1999).

2.3.4.1.2.6 South-East Asia region

In South-East Asia region, most countries have established university education for nurses, however the progress is very slow due to unique social, economic and political situations experienced by these states (WHO-ROSEA 2001, 2002). Within the region, nursing education in Thailand showed remarkable progress with the establishment of the first baccalaureate degree program for nursing in 1956 and the first Faculty of Nursing in 1971 (Anders & Kunaviktikul 1999). In 1978, all nursing colleges in Thailand upgraded to 4 years of education, and moved entry level into practice at the baccalaureate degree (Anders & Kunaviktikul 1999). Most other countries are moving in the same direction with the establishment of university based 4-year degree programs (Table 2). In Bangladesh, the diploma course was extended from three years to four years in 2006 and it is now under discussion to upgrade to a Bachelor degree in nursing (WHO-ROSEA 2007). In Sri Lanka, the first Bachelor's degree course in nursing started in 2005.

Table 2: Nursing programs offered in South-East Asia

Country	General Nursing (3-year)	Post-basic Bachelor (2-year)	Bachelor's degree (4-year)	Masters degree (2-3 years)	Doctoral degree (3-year)
Bangladesh	X (4-year)	X			
Bhutan	X	X			
DPR Korea	X				
India	X		X	X	X
Indonesia	X	X	X	X	
Maldives	X				
Myanmar	X	X	X	X	
Nepal		X	X	X	
Sri Lanka	X	X	X		
Thailand			X	X	X
Timor-	X				

Source: (WHO-ROSEA 2007)

2.3.4.1.3 Benefits of baccalaureate nursing education

Nurses with baccalaureate qualifications are well prepared to meet the current demands of the healthcare environment. Baccalaureate qualified nurses are valued for their skills in critical thinking, leadership, case management, and health promotion, and for their ability to practice across a variety of inpatient and outpatient settings (AACN 2005, 2007). Nurse leaders, international and national nursing organisations, health care institutions, magnet hospitals, and nurse advocacy groups all recognise the unique value that baccalaureate-prepared nurses bring to the practice setting (AACN 2005). Generally, all baccalaureate level nursing programs encompass more in-depth knowledge of the physical and social sciences, nursing research, public and community health, nursing management, and the humanities (AACN 2005). Incorporating the additional course work into the baccalaureate programs increases the student's professional development, prepares the new nurse for a broader scope of practice, and provides the nurse with a better understanding of the cultural, political, economic, and social issues that affect patients and influence health care delivery (AACN 2005, 2007).

Several high quality studies have revealed that baccalaureate-nursing graduates acquire unique skills as clinicians and demonstrate an important role in the delivery of safe patient care. A cross-sectional study analysed the clinical outcomes for over 200,000 patients in 168 hospitals in one part of the USA (Pennsylvania) over a 2-year period to compare three types of nursing education in USA (3-year hospital diploma, associated degree programs and the 4-year bachelor's degree) (Aiken *et al.* 2003). This cross-sectional study found that in hospitals, a 10 % increase in the proportion of nurses holding a bachelor's degrees was associated with a 5% decrease in both the odds of a patient dying within 30 days of admission and the odds of failure to rescue (odds ratio, 0.95; 95 confidence interval, 0.91-0.99 in both cases) (Aiken *et al.* 2003). Aiken *et al* (2003) further recommended that public financing of nursing education should aim at shaping a workforce best prepared to meet the needs of the population. A systematic review also concluded that bachelor degree preparation of nurses was associated with better nursing performance, and higher levels of critical thinking and clinical decision making (McKinley *et al.* 2001).

Another study showed that significantly higher levels of medication errors and procedural violation were committed by nurses only prepared at the associate degree and diploma levels as compared with the baccalaureate level (Fagin 2001). Nearly three quarters of chief nurse officers (72%) in university hospitals prefer to hire nurses who have baccalaureate degrees, citing stronger critical thinking and leadership skills of these graduates compared with associate degree or hospital diploma prepared nurses (Goode *et al.* 2001). Studies have also found that nurses prepared at the baccalaureate level have stronger communication and problem solving skills (Johnson 1988) and a higher proficiency in their ability to make nursing diagnoses and evaluate nursing interventions (Giger & Davidhizar 1990). Another study found that nurses prepared at the baccalaureate degree level were found to have higher levels of job satisfaction which is a key to nurse retention (Rambur, Palumbo, McIntosh & Mongeon 2003). However, the finding of similar pass rates for the national licensing examination for registered nurses (NCLEX-RN©) in USA for all three types of graduates was not considered as proof that there are no differences among graduates (AACN 2005). The NCLEX-RN© is a mechanistic and behaviourist testing procedure (Csokasy 2002) and it does not measure performance over time or test for all of the knowledge and skills developed through a bachelor's program (AACN 2005).

This review has further confirmed the findings of a global nursing education survey that revealed many countries provide nursing education in universities and specialist nursing schools rather than the traditional hospital environment (Pearson & Peels 2001b). It can be concluded that countries around the world are moving to create a more highly educated nursing workforce, ensuring improved patient care outcomes and safety.

2.3.4.2 Transforming nursing education: behaviourism to humanism

The movement of nursing schools into university education institutions brought a shift of pedagogical approach in nursing education (Allen 1990, 1990; Moccia 1990). In the 1980s most nursing education programs utilised the dominant Tyler behavioural model (Bevis 1988). However, in the last two decades, global trends in educational processes have been grounded in humanism that supports egalitarian student-teacher relationships (McGregor 2005).

2.3.4.2.1 Behaviourism

The philosophical foundations of educational movements reflect the context of certain time periods and cultural settings (Metcalfe 1998). Behaviourism stemmed from the works of Watson (behaviourism) (1924), Skinner (operant conditioning) (1938) and Thorndike (connectionism) (1949). Behaviourism speculates that learning occurs through close association between stimuli and responses (Haw 2006). Currently, behaviourism is based on the beliefs that *"…instruction is achieved by observable, measurable and controllable objectives set by the instructor and met by students"* (Leonard 2002, p.16). The behaviourist paradigm is often seen in vocational/technical training, where the goal - to prepare students for employment - is clearly stated (Csokasy 1998). The focus of behaviourism is only behavioural change outcomes, assessing demonstrated achievements of preset learning objectives, and it is not concerned with the creativity or autonomy of learners (Ironside 2001; Haw 2006).

Despite its limitations, behaviourism has been widely used in nursing education since the publication of the Tyler curriculum model in 1949 (National League for Nursing 2003). Those curricula were teacher-centred, content-laden, highly structured, and emphasised measurable, behavioural outcomes (Friere 1970; National League for Nursing 2003). Consequently, nurse educators found themselves pulled toward an alignment to content to be taught/delivered, rather than to the processes of learning

(Bevis & Watson 1989). Nurse educators have continued to teach generations of nurses with this same model, with debate centred on the efficacy of adding or deleting content (Tagliareni & Sherman 1999). Several studies of both medical and nursing education revealed that behaviourally based health professional education is outdated (Evans 1995). The traditional natural science-based pedagogical approaches (including behaviorism) have failed to recognise and support unique characteristics of patients' healthcare needs (Chan 2002). Nursing was failing to reach its potential as a human caring science (Bevis 2000). By recognising the limitation of behaviorism as a nursing pedagogy, nursing education is eventually striving to shift towards more humanistic philosophies via a more integral and balanced approach (Clark 2005). This movement emphasises educating students rather than training them through rules and objectives of the profession (Chan 2002).

2.3.4.2.2 Humanism

Humanism has variously been described as a philosophy, a theory of psychology, and an approach to educational practice (Brockett 2006). Philosophy and psychology provide a basis for the understanding of humanism, while education converts these principles into practice (Brockett 2006). Humanism stems from the belief that human thinking and learning are driven by the growth of the self as a whole, mature, and complete human being, who has a strong character and an ability to make decisions that positively affect others (Leonard 2002). Humanism as an educational theory is a natural outcome of the existentialist philosophical view of the rights of an individual (Csokasy 1998). Humanistic existentialist education provides a commitment to educational practice in which all facets of the teaching and learning process give major emphasis to the freedom, value, worth, dignity and integrity of person (Norton 1998). In humanistic existentialism, teaching and learning are reciprocal endeavours that develop the human spirit, mind and emotions of both teacher and student (Metcalfe 1998). It appears that many adult educators today, especially those recognising the value of self-direction in learning, operate primarily from humanist beliefs (Hiemstra & Brockett 1994).

Humanism is consistent with emerging paradigms in nursing practice and education (Haw 2006). Most humanistic theories of psychology and education [e.g. Maslow's hierarchy of needs –Maslow (1970); Gestalt theory – Wertheimer (1959)] are widely used in nursing practice and education. Humanism has continued in a modified

movement to promote many of the progressive principles of student-centred education and the role of the teacher as guide (Csokasy 1998). Humanistic existentialism has widely used in developing nursing educational programs (Watson & Leininger 1990). Bevis and Watson (1989 p.5) recommended educators implement nursing curriculum that are *"existential/humanist, holistic, subjective, intuitive, phenomenological, and human experience oriented"*. However, many nursing educators struggle with implementing an existential-humanist view of teaching and learning, while maintaining student's success in behaviourist evaluation processes e.g. NCLEX-RN (Csokasy 2002). As a profession, the outcome assessment of the programs is mandated by the accrediting bodies, therefore nurse educators are responsible for maintaining prescribed standards while using outcome strategies that fall within the humanist framework (Csokasy 2002). Humanist-based outcome assessment focuses on critical thinking and application of knowledge to formulate an integrated response to clients' issues; however, developing appropriate outcome assessment methods requires considerable effort and creativity (Csokasy 2002). Therefore, some instructional designers (and many other educators) seem to have difficulty accepting or incorporating humanist beliefs into their programs. Many nursing educational programs accept humanistic beliefs but the implementation is decidedly behaviouristic in nature. This situation is quite similar in many countries despite the levels of education (diploma or degree). Many nursing educational institutions have called forreforms of nursing education to develop new pedagogies that are most effective and appropriate in assisting students to learn how to practice in rapidly-changing healthcare environments. These new pedagogies must be evidence-based, pluralistic and responsive to the unpredictable nature of the contemporary health care system (Ben-Zur *et al.* 1999).

2.3.4.3 Movement of evidence- based practice in nursing

2.3.4.3.1 Evidence based practice in healthcare

The philosophical origin of the evidence based movement emerged in the mid 19th century in Paris (Sackett, Rosenberg, Gray, Haynes & Richardson 1996), and there are two important events in the evolution of this movement (Gillenwater & Gray 2003). The first step was the work of British epidemiologist, Archibald Leman Cochrane (1909-1988), who drew attention to the lack of information about the effectiveness of health care with particular reference to medicine. The establishment of the Cochrane Collaboration (http://www.cochrane.org) in the United Kingdom

stemmed from Cochrane's work on evidence-based medicine, and this group produces and disseminates systematic reviews of healthcare interventions worldwide. The Agency for Health and Research Quality (AHRQ) (http://www.ahrq.gov) in the United States of America, and the Joanna Briggs Institute (JBI) (http://www.joannabriggs.edu.au) in Australia were established to follow and improve this movement. Another important landmark to evidence based movement was the establishment of evidence-based approach in the medical curriculum in the McMaster University, Canada (Gillenwater & Gray 2003). As the evidence-based movement became popular, the terminology changed and terms such as evidence-based practice (EBP) emerged from evidence-based medicine (EBM), and other phrases such as research-based practice, evidence based healthcare and evidence-based nursing evolved (French 2002).

Evidence based practice incorporates the conscientious, explicit, and judicious use of current best evidence from well designed systematic research, a clinician's expertise, and patient values, for making decisions about the care of individual patients and the context in which healthcare is provided (Sackett, Rosenberg, Gray, Haynes & Richardson 1996; Sackett, Straus, Richardson, Rosenberg & Haynes 2000; Pearson et al. 2005). EBP is a process that involves (1) identification of an intervention, activity or phenomenon, (2) determining the best available international evidence on this intervention, activity or phenomenon through a rigorous process of systematic review, (3) development of recommendations for practice based on this evidence, and (4) development of practice guidelines based on this evidence together with local consensus (Pearson & Field 2005). However, EBP is not only the application of research-based evidence on clinical decision-making, but rather extends to identifying gaps of existing knowledge.

2.3.4.3.2 Evidence based nursing

Evidence-based practice is a hallmark of professional nursing and it is critical for quality, cost-effective health care (International Council of Nurses 1999a). Increasingly, the practices of nurses are seen to have a direct impact on patient outcomes, and a pivotal role in decision-making in clinical and management sectors in health care (Pearson 2002). In clinical decision-making, nurses need critical thinking skills to generate alternatives, and also require the best available evidence to

select to best alternatives to achieve desired patient care outcomes (Ferguson & Day 2005; Profetto-McGrath 2005).

Globally, healthcare and nursing services are challenged by increasing demands and cost effectiveness. On the other hand, the rapid development of medical, nursing and health science, together with modern technology over the past fifty years has led to an enormous growth in knowledge, and expansion in the range of healthcare interventions. As a result of this development, there is a massive growth in the available healthcare information. Additionally, consumer expectations have increased in relation to the quality of care they receive. All of these factors make it difficult to know which information should be used as the basis for clinical practice. Consequently, the delivery of nursing can no longer be based on tradition but rather requires a contemporary approach to care that is underpinned by evidence. Embedding evidence in practice settings is therefore considered to be a significant challenge for the nursing profession (Pearson 2004). Evidence-based practice is one of the best ways to respond this issue.

The nursing profession is increasingly accepting evidence-based practice, due to recent focus on patient values and clinical judgment in healthcare. The Sigma Theta Tau International (2005) defines evidence-based nursing as:

> *…an integration of the best evidence available, nursing expertise,*
> *and the values and preferences of the individuals, families and*
> *communities who are served.*

The evidence-based approach to nursing care bridges the gap between the best evidence available and the most appropriate nursing care of individuals, groups and populations (Sigma Theta Tau International 2005). EBP is therefore viewed as a way to reduce the research–practice gap that has been identified as a major issue in nursing (Hutchinson & Johnston 2004). Recognising the importance of evidence based nursing practice, most pre-registration nursing programs integrate EBP principles into nursing curricula (Ferguson & Day 2005).

2.3.4.3.3 Evidence based nursing education

Evidence-based practice is increasingly becoming a major concept in nursing education internationally. Ferguson and Day (2005 p110) defined evidence based nursing education as:

> *the use of best evidence to justify particular teaching or curricular interventions, considering the needs of individual learners, the professional judgment of nurse educators, and the resource costs of the interventions.*

Nursing education systems are incorporating evidence-based strategies as results of healthcare reforms in their countries. Several countries have passed policies relating to evidence-based healthcare, and suggested that health professional education and curricula should be based on this approach (Ciliska 2005). During the past decade, many schools of nursing and nursing research institutions have incorporated evidence-based practice or evidence based nursing into their mission and philosophical statements to reflect their focus on this movement (Ingersoll 2000). In the USA, more than 95% of accredited baccalaureate nursing programs offer formal research courses that are incorporated with EBP strategies (Porter & Mansour 2003). In South-East Asia Region, the WHO recommends a conceptual framework for management of nursing and midwifery workforce that incorporates evidence based decision-making as a key strategy for developing nursing management practice and education (WHO-ROSEA 2002).

However, there is a serious lack of evidence regarding nursing education, and there is a clear need for rigorous research to determine the effectiveness of teaching, learning and curricula interventions (Fitzgerald, Pincombe, McCutcheon, Evans, Wiechula & Jordan 2001; McKinley et al. 2001; National League for Nursing 2004; Jayasekara, Schultz & McCutcheon 2006). There are several reasons cited for this situation such as inadequate funds for nursing research, inadequate or inappropriate research methods and lack of important outcome measures, and lack of consensus regarding educational interventions (e.g. problem-based learning- definitions, implementation, and methods of evaluation). It is also evident that there is a lack of studies summarising best available evidence in nursing education, partly because the use of meta-analysis or meta-synthesis is almost impossible due to inconsistency of strategies, interventions, definitions, and measurements of nursing educational research (Jayasekara, Schultz & McCutcheon 2006). However, the importance of integrating EBP into nursing education, as suggested by many publications and several leading international nursing organisations, is clear. In an era of severe nurses' shortage with increased emphasis on cost effectiveness of healthcare interventions, the necessity of applying evidence-based practice to nursing education is readily apparent.

2.3.5 Conclusion

The healthcare environment across the world is changing dramatically due to the advancement of medical sciences and technology, the abundance of clinical research and the increasing demands of consumers. As a key profession of healthcare, these changes represent a significant challenge to the nursing profession, and to the education of nurses. Many countries around the world have realised the importance of higher education for nurses, and most countries are moving in this direction. Nurse educators and healthcare institutions are seeking better ways to prepare future nurses, while restructuring the paradigm of nursing curricula from behaviourism to humanism. The nursing profession is increasingly accepting evidence-based practice as the best strategy for achieving quality outcomes from nursing and healthcare interventions.

2.4 Healthcare in Sri Lanka

2.4.1 Introduction

It is widely recognised that better health is a prerequisite for overall economic and social development of a nation. Healthcare systems must be responsive to peoples' needs and must be coordinated to ensure access to comprehensive, high quality, equitable, cost effective and sustainable health services. Sri Lanka, like many other countries experiencing the epidemiological transition, will have to make effective decisions on healthcare service management, and in relation to developing education and training programs for healthcare professionals.

The review was conducted to examine the challenges faced by the Sri Lankan healthcare system, and to examine the health status of Sri Lankans, and trends in healthcare provision in Sri Lanka. This review includes demography, epidemiology, economic data and health expenditure, and an analysis of current trends and issues in the Sri Lankan healthcare system. The review concludes with policy recommendations to improve the health status of Sri Lankans. The findings of the review were used to inform the development of a conceptual framework for undergraduate nursing curricula in Sri Lanka.

2.4.2 Search strategies

The purpose of the literature search was to find relevant studies of health status and trends in Sri Lanka. The search was limited to English and Sinhala languages. The literature search was conducted by searching MEDLINE and CINAHL for the period January 1976 to November 2006. The next step was to perform a general Internet search. The following key words were used for both searches: 'health', 'health services', 'health trends' and 'Sri Lanka'. Sri Lankan Government records and national and international organisations' web sites were used to obtain health information on Sri Lanka. The reference list of all identified reports and articles was searched for additional studies. Hand searching of relevant Sri Lankan journals and government reports was undertaken to reveal any additional literature.

2.4.3 Overview of Sri Lanka

Sri Lanka, an island of 65,610 square kilometers in the Indian Ocean is located to the south of the Indian subcontinent. Sri Lanka is mainly an agricultural country. The

major crop is rice in which the country is almost self-sufficient. Tea, rubber and coconut are also important agricultural crops, with tea being a major foreign exchange earner. Administratively, Sri Lanka is divided into eight provinces, 25 districts and over 300 Divisional Secretariat areas. The country has a parliamentary democratic system of government, with the elected Parliament responsible for legislative functions, and the Cabinet of Ministers, presided over by the Executive President, vested with executive powers. The provinces have their own provincial councils, headed by a governor, and elected representatives.

The population of Sri Lanka is 20.06 million, the majority of whom are Sinhalese (74%). Other ethnic groups are made up of Sri Lankan Tamils (12.6%), Indian Tamils (5.5%), Moors, Malays, Burghers (of Portuguese & Dutch descent) and others (7.9%). There has been substantial overseas migration of Sri Lankan Tamils due to the 20 years civil war between Tamil terrorists and the government. Although Sri Lanka is a multi-religious country, Buddhists constitute the majority with 69.3%. Other religious groups are Hindus 15.5%, Muslims 7.6% and Christians 7.5% (Department of Census and Statistics 2005).

2.4.4 The history of health services in Sri Lanka

Indo-Aryan people migrated to the island now known as Sri Lanka (formerly called Lanka by the ancient Sinhalese, Taprobane by the Greeks, Serendib by the Arabs, Ceilao by the Portuguese, Ceylan by the Dutch and Ceylon by the British) from the northern areas of the Indian subcontinent late in the 6th century B.C. Over time they became known as the Sinhalese and developed a distinct language, Sinhala, based on the Sanskrit language. In the middle of the 3rd century B.C., Sinhalese King Devanampiya Tissa converted to Buddhism during a missionary visit by Mihidu Hemi, son of Indian King Asoka the Great. The Sinhalese monarch became a powerful patron of Buddhism, firmly establishing it as the official religion of the kingdom. At this time, a great civilisation developed at the cities of Anuradhapura and Polonnaruwa.

Historical evidence reveals that ancient Sri Lanka had a reasonably well-developed health care system to the meet the health needs of the people. It is traditionally believed that Ravana, the ancient King of Lanka was well versed in medical lore. The principal source of information on the early history of Sri Lanka is the

Mahavamsa (Great Chronicle), written by Buddhist monks in the 5th century AD (Jayasekara 2005). The Mahavamsa reveals that Buddhism influenced the advent of traditional Sinhalese medicine that was primarily based on Ayurveda in the 3rd century B.C. and inspired the Sri Lankan Kings to establish hospitals for sick people. King Pandukabaya built general hospitals and maternity hospitals called *"Sotti Shala"* and *"Sivica Shala"* in 437-346 B.C. (de Silva 1978). This is the earliest published evidence of the concept of hospitals anywhere in the world (Aluvihare 1993). The ancient Buddhist universities like *Nalanda* in India, *Taxilla* in Pakistan, *Mahaviharaya* in Sri Lanka (built in or about 307 B.C. by King Devanampiya Tissa) were very large institutions with hospitals called *"Halls of Care"* which were established to provide heath care for the monks (de Silva 1997; Jayasekara 2005). A cave inscription of the early *Brahmi* script records the donation of two caves to the *Sangha* by a person named *Gobuli*, who was both physician and teacher to the King Devanampiya Tissa (307-250 BC) (Ranaweere 2001). King Buddhadasa (340-368 AD) the country's renowned physician-king was adept in general medicine, surgery, midwifery and veterinary medicine (de Silva 1978). King Kasyappa (479 AD) constructed ayurveda hospitals in Anuradhapura and King Parakramabahu the Great constructed irrigation works and the Royal Hospital (1164 AD) (Ranaweere 2001). Some of the inscriptions dated between the period of 8th and 12th AD also reveal information on medical systems in Sri Lanka during that period (Ranaweere 2001). The existence of a system of hospitals in Medirigiriya, Mihintale and Polonnaruwa has been proven, and medicine troughs probably used by hospitals for herbal baths have also been discovered (Ranaweere 2001).

This great tradition of healthcare, together with the sciences of engineering and surveying, was lost during the 16th century (de Silva 1997). However, the indigenous system of medicine and Buddhism created a social system in which nursing the sick is the most exalted possible form of work.

2.4.5 Establishment of western medicine

Western-style medical practices have been responsible for most of the improvements in health in Sri Lanka during the twentieth century. Western medicine was introduced to Sri Lanka by foreign rulers – namely the Portuguese, the Dutch and the British who ruled the country from 1505, 1796, and 1802 respectively (Uragoda 1987). Sri Lanka became a crown colony in 1802, and was united under British rule

by 1815. The main aim of healthcare at the time was to provide medical care to their soldiers, government officials and their families (de Silva 1997) and to protect them from communicable diseases such as smallpox, leprosy, and malaria. The first Western hospital in Sri Lanka (Ceylon) was established in 1800 mainly for soldiers and it was opened to the public in 1820 (de Silva 1978). In 1858, the Civil Medical Department was created to maintain public health in Sri Lanka, however the major function of the department was the control of communicable diseases (Uragoda 1987). Western medicine was promoted as the official system of medicine, weaning the public away from the traditional indigenous system of medicine.

2.4.6 Health service administration in Sri Lanka

In Sri Lanka, government-sponsored health services reaching the majority of the community are free and are delivered through an extensive network of health centres, hospitals and dispensaries located countrywide, from primary to tertiary level. On average the public can freely access a healthcare unit not further than 1.4 km from any home while western type of healthcare services are available within 4.8 km of a patient's home (Ministry of Health Nutrition & Welfare 2002a). In Sri Lanka, the government sector provides health care for nearly 60% of the population encompassing the entire range of preventive, curative and rehabilitative health care provision (Ministry of Health Nutrition & Welfare 2002a). In 2002 alone these healthcare institutions provided facilities for 45 million outpatient visits and 4 million inpatient admissions; these data indicate that on average each person accesses government healthcare at least twice per year (Ministry of Health Nutrition & Welfare 2002a). The private sector provides mainly curative care for an estimated 50% of the healthcare consultation (outpatient care) for the population, largely concentrated in urban and suburban areas (Ministry of Health Nutrition & Welfare 2002a).

The Ministry of Health (MOH) in Sri Lanka is headed by a Cabinet Minister who is responsible for the health of the nation. Since the implementation of the Provincial Councils Act in 1989, health services have been decentralised, with separate provincial-level Ministers of Health in the eight provinces. The Director General of Health Services (DGHS) is the head of the Department of Health Services that manages and implements the policies of the Ministry of Health. The DGHS has immediate support from 15 Deputy Director Generals (DDGs) of the specific

program areas and they have, in their jurisdiction, 70 Directors responsible for different programmes and organisations (Ministry of Health Nutrition & Welfare 2002a). The eight Provincial Directors of Health Services (PDHS) are totally responsible for management and effective implementation of health services in the respective provinces. In 2002 there were 26 Deputy Provincial Directors of Health Services (DPDHS), to assist the eight Provincial Directors of Health Services (Ministry of Health Nutrition & Welfare 2002a). Each DPDHS area is sub-divided into several Medical Officers of Health areas, headed by the Medical Officer of Health, who is responsible for the preventive and promotional health care of the community (Ministry of Health Nutrition & Welfare 2002a).

2.4.7 Health status and trends in Sri Lanka

The people of Sri Lanka benefit from several social welfare programs. Sri Lanka's social indicators are unique in South East Asia because it is a low income country with an average per capita income of around US$ 800 which provides universal free health care, free education, strong gender equality, and opportunity for social mobility (Ministry of Health Nutrition & Welfare 2003; Samarage 2006). After independence in 1948, all successive governments implemented several welfare-oriented policies and programs, enabling the achievement of relatively high standards of social and health development as compared to other South East Asian countries (Samarage 2006). As a result, Sri Lanka is ranked 93rd in the 2005 Human Development Report, with a relatively high Human Development Index (HDI= 0.751), compared with neighboring South-East Asian countries (e.g. India 127th, 0.602; Pakistan 135th, 0.527) (HDRO 2005).

2.4.7.1 Demographic trends

One of the most clearly visible features in Sri Lanka's age structure is the increasing trend in the proportion of older age groups. The population aged 60 years and older in Sri Lanka is much higher than in the rest of South Asia. In 1992, 8.3 % of Sri Lanka's population was aged 60 and over, which is a relatively large elderly population for a developing country (de Silva 1994) (Table 3). The base of the population pyramid is contracting and the proportion of the population over 65 years has been expanding markedly over the last 25 years and is expected to increase from 6.3% to 12.3% in the next 25 years (Abeykoon 2002).

Table 3: Expectation of life at birth and population aged 60 and over in South Asian countries

NOTE: This table is included on page 45 of the print copy of the thesis held in the University of Adelaide Library.

Source: (de Silva 1994)

Ageing is primarily a result of a decline in fertility and mortality. The life expectancy of the population in Sri Lanka has increased steadily from around 43 years in 1946, to 70 in 1981, 72 in 1991 and 73 in 1996 (75.4 for females and 70.7 for males in 2001) and the fertility rate has declined to below population replacement level at around 2.0 per woman (between 1995-2000) (Ministry of Health Nutrition & Welfare 2002a, 2003). Sri Lanka has passed through the classical phases of demographic transition to reach the third phase of a declining birth rate (19.1 births/1,000 population in 2002 compared to 29.7 births/1000 population in 1970-72) and a relatively stable low death rate (5.8 deaths/1,000 population in 2002) (Abeykoon 2000; Ministry of Health Nutrition & Welfare 2002a; WHO 2006).

Healthcare for the elderly is expected to become an important focus for the social and health care services in Sri Lanka. With recent economic and social changes in Sri Lanka, such as urbanisation, migration and increased female labour-force participation, traditional extended family networks have weakened and elders are less able to use this informal support network than in the past (de Silva 1994; Nugegoda & Balasuriya 1995). A recent survey found that depression, cognitive dysfunction and severe visual impairment were present in substantial proportions of the older population and fall rates were also high (Weerasuriya & Jayasinghe 2005). The expansion of the ageing population will likely lead to an increase in the prevalence of non-communicable diseases such as cardiovascular disease; cancer; diseases of the respiratory; genito-urinary; neurological; and digestive systems; and mental

disorders. This will surely result in a higher demand for long-term supportive services and nursing care. Currently, only a few public and private institutions provide care for the elderly. However, there is a severe dearth of qualified healthcare professionals in this speciality. In addition, geriatrics is not a separate subject in the healthcare professionals' education in Sri Lanka. Thus, existing healthcare professionals and institutions are not adequately prepared for providing long-term care to the elderly.

2.4.7.2 Maternal and child health

The 2000 Maternal Mortality Rate (MMR) of 2.3 per 10,000 live births and the Infant Mortality Rate (IMR) of 16.3 per 1,000 live births are indicative of a functional health care system, especially given the people's low income levels (Ministry of Health Nutrition & Welfare 2003). The improvements of these indicators(Table 4) are mainly credited to the National Maternal and Child Care Program implemented as an essential part of the national healthcare system (Ministry of Health Nutrition & Welfare 2003).

Table 4: Maternal and Infant Mortality Rate per 1000 live births (1970-2000)

NOTE: This table is included on page 46 of the print copy of the thesis held in the University of Adelaide Library.

Source: (Department of Census and Statistics 2005)

Despite a consistent decline in infant and maternal mortality, Sri Lanka still experiences vital health problems among infants, pre-school children and pregnant women that might be attributed to low socioeconomic levels. For example, there is a relatively high incidence of preventable disease, inadequate child spacing and a high level of malnutrition among children and pregnant women (Jayasekara 2001). According to the Demographic and Health Survey 2000, 22% of ever married women in the reproductive age group are malnourished, while 17% of children under five years have been born as low birth weight babies (Ministry of Health Nutrition & Welfare 2003; Department of Census and Statistics 2007). Nutritional deficiencies among children and mothers in lower-income households in Sri Lanka continue to be a major problem; anemia is another major factor complicating maternal and child health (Ministry of Health Nutrition & Welfare 2002a). For example, available data

from 1993 indicate that the prevalence of nutritional anemia (hemoglobin less than 11 g/dl) among pregnant women was 65% (Gunasekera 1998). The overall prevalence of anaemia among children (5-10 aged) was 52.6% (de Silva, Atukorala, Weerasinghe & Ahluwalia 2003).

Results of the three consecutive Demographic and Health Surveys of 1987, 1993 and 2000 show that the nutritional status of children has not significantly improved. The Demographic and Health Survey of 2000 reported that 29.4% of children below five years suffered from underweight (low weight-for-age) and 13.5% suffered from stunting (low height-for-age) due to chronic malnutrition (Ministry of Health Nutrition & Welfare 2002a). Iodine deficiency in Sri Lanka was present in 70% of the population and some areas (provinces) have shown goitre prevalence as high as 25-30% among school children (WHO 2006). In response, the government commenced the universal salt iodisation program in 1995. However, a recent study has shown that iodine deficiency still exists in Uva province while iodine levels were greater than recommended in the North Central Province (Jayatissa, Gunathilaka & Fernando 2005). The authors concluded that the recommended level of iodised salt be revised. In summary, it is apparent that a lack of public awareness about issues pertaining to nutrition appears to be the major impediment for improving maternal and childhood health status of Sri Lanka.

2.4.7.3 Infectious and non-communicable diseases

In Sri Lanka, infections and parasitic diseases - including diarrhoeal diseases and acute respiratory infections - continue to be among the leading causes of outpatient care in hospitals. Intestinal infections ranked as the fifth leading cause of hospitalisation, while acute respiratory infections account for 30–50% of pediatric outpatient attendance and 10–30% of child admissions to hospitals (Ministry of Health Nutrition & Welfare 2002a). Diarrhoeal diseases and acute respiratory infections can lead to chronic malnutrition and growth failure among infants and pre-school children.

Non-communicable diseases such as cardiovascular and cerebro-vascular disease, pulmonary diseases, liver disease, cancer, diabetes, osteoporosis and trauma, constitute the major cause of death in developed countries and are predictably emerging as significant threats to health in countries at intermediate stages of the epidemiological transition (Shigan 1988). With the success in combating the major

communicable diseases, the disease burden has started shifting rapidly towards non-communicable diseases and mental health, accidents and injuries, apparently in concert with the rapid demographic and social changes occurring in Sri Lanka (Ministry of Health Nutrition & Welfare 2003). In Sri Lanka, the leading causes of death (by percentage of total mortality for the year 2000) are ischemic heart disease (10.6%), diseases of the intestinal tract (9.3%), cerebro-vascular disease (9.0%), pulmonary heart disease and diseases of the pulmonary circulation (8.6%), and neoplasm (7.5%) (Ministry of Health Nutrition & Welfare 2003). Compared with the highest incidences recorded in East European countries such as Russia (1117 deaths per 100 000) and Hungary (851 deaths per 100 000), Sri Lanka recorded 524 deaths per 100 000 for mortality from cardio and cerebro-vascular disease. A recent study estimated the projected burden of non-communicable diseases in Sri Lanka and revealed that the incidence of hospitalisation will increase by 36%, 40% and 29% due to diabetes mellitus, hypertensive disease and ischemic heart disease, respectively, in 2010 as compared to 2005 (Premaratne, Amarasinghe & Wickremasinghe 2005). Diagnostic and treatment technologies for many such diseases are expensive and the outcomes are often poor, therefore prevention is generally a more cost-effective use of state funding (Abeykoon 2003). However, some diseases are chronic and require lifelong treatment or containment. These challenges require significant changes in current healthcare development strategies such as developing community based health promotion and disease prevention programs.

The major cause of hospitalisation in Sri Lanka, traumatic injury, has increased from 1,732 cases per 100,000 people in 1980 to 3,413 in 2002 (Ministry of Health Nutrition & Welfare 2002a). Road traffic deaths and injuries are a major public health issue and the major cause of traumatic injuries. Nearly 2,000 deaths and 14,000 injuries each year occur due to road traffic accidents in Sri Lanka (Dharmaratne & Ameratunga 2004). However, in Sri Lanka, there is a serious lack of public awareness on road safety rules and basic life support techniques for assisting accident victims.

Pesticide poisoning was the fifth or sixth leading cause of death during the period 1993-1998 and has been the seventh leading cause of death since then. In 2002 it accounted for 3,000 deaths and 80,000 hospitalisations (Fernando 2002). The

majority of poisoning cases (59%) are self-inflicted, by mainly young adults (median age 25 years), living in rural agricultural areas where agrochemicals are easily available (Hettiarachchi & Kodithuwakku 1989; Eddleston, Gunnell, Karunaratne, de Silva, Sheriff & Buckley 2005; van der Hoek & Konradsen 2005). In addition, ingestion of yellow oleander seeds (*Thevetia peruviana*) has recently become a popular method of self-harm in northern Sri Lanka, and there are thousands of cases each year (Eddleston, Ariaratnam, Meyer, Perera, Kularatne, Attapattu, Sheriff & Warrell 1999; Eddleston et al. 2005). In 1991, Sri Lanka reported the highest rates of suicide in the world (47 per 100 000 people). The suicide rate increased by 700% between 1960 and 1997 (Jayasekara 2001; van der Hoek & Konradsen 2005). This trend has continued and, at present, suicide rates are high in late adolescence and early adulthood, and are rising among the elderly (Jayasekara 2001). The high suicide rate is indicative of high levels of social, emotional and physical stress in the country, and shows the inadequacy of supportive mental healthcare services in Sri Lanka. However, mental health is one of the 17 areas of activity identified in the primary health care (PHC) program in Sri Lanka (Jayasekara 2001).

Alcoholism and drug abuse are social as well as medical problems, and have been implicated in deaths caused by accidents and crime. Most of the alcohol consumed is probably illicit and unrecorded, and cannot provide a meaningful picture of the existing situation or trends (Abeysinghe 2002; WHO 2004a). The Alcohol and Drug Information Center (ADIC) in Sri Lanka published the results of a survey of school children in 1993, and revealed that 25% of those using alcohol began to do so prior to the age of 11 years (ADIC 1993). Heroin, cannabis, hashish and opium are the drugs generally abused in Sri Lanka although most cases are unrecorded (Kumarasingha 1988). Alcohol and drug use are often a response to greater societal issues such as poverty, unemployment and the lack of fulfillment caused by these factors, and become a way of coping with health and emotional problems (Jayasekara 2001). In addition, there will be about 20,000 deaths annually in Sri Lanka as a result of tobacco chewing and/or smoking and many more will suffer from heart disease, cancer and stroke (Jayasekara 2001; Perera, Fonseka, Ekanayake & Lelwala 2005). Tobacco accounts for 16.5% of all cancers in Sri Lankan patients (Siriwardena, Tilakaratne, Amaratunga & Tilakaratne 2006). The lack of a comprehensive national policy on drug abuse has been a major constraint on law enforcement and the

development of interventions for education, treatment, rehabilitation and crop substitution (Jayasuriya 1995).

2.4.7.4 Emergency preparedness

2.4.7.4.1 Civil conflict

The 19-year civil war between the Liberation Tigers of Tamil Eelam (LTTE) and the Government, which is the major social and economic crisis in Sri Lanka, has resulted in the deaths of over 64,000 people and the displacement of over 800,000 people (World Bank 2005a). Though peace talks between the LTTE and government have been initiated several times, and despite two previous attempts at a ceasefire in 1989 and 1994, the war has continued, and has recently worsened at the time of writing (December 2006). A recent suicide bombing on the army headquarters in Colombo has heightened fears of a return to full-scale civil war in Sri Lanka (BBC 2006).

Over the years, the LTTE has carried out a series of violent attacks both on government resources as well as on civilians throughout the country. Their high recruitment rate and their strong hold over the Tamil areas reinforce an environment through which they exercise psychological control over the local population (World Bank 2005a). Due to the civil war, civilians are caught in crossfire; landmines and unexploded ordnance pose a constant threat (Reilley, Simpson, Ford & DuBois 2002). The stressful living conditions, and the general level of trauma within the population, is reflected by the alarming rate of suicide in the refugee camps, which is almost three times higher (103.5 per 10 000) than in the community (37.5 per 10 000) (de Jong, Mulhern, Ford, Simpson, Swan & van der Kam 2002). A recent study revealed that 50% of those who have been engaged in front line military service in the civil war have suffered from adjustment disorder or a stress reaction (Perera, Suveendran & Mariestella 2004). It is difficult to estimate the level of psychological trauma of war experienced by the wider Sri Lankan community.

In conflict areas, health units, health professionals, and medical supplies have all suffered as a consequence of the long-term conflict, resulting in poorer access, availability, and quality of health care (Reilley *et al.* 2002; Collie 2003). In the government sector, the National Hospital of Sri Lanka based in Colombo has established an emergency health sector plan, primarily meant to provide medical care during mass casualty situations like bomb blasts.

2.4.7.4.2 Natural disasters

Natural disasters in Sri Lanka are mainly hydro-meteorological phenomena such as floods, landslides, cyclones, tidal waves and droughts. Floods and landslides are more localised and seasonal while droughts are more widespread and cyclones occasional (WHO 2006a). In addition, industrial and mining accidents and environmental degradation could be considered as the other main potential hazards in the country (WHO 2006a). Sri Lanka was severely affected by the earthquake and consequent tsunami that struck the Indian Ocean on the morning of December 26, 2004, leaving behind widespread destruction. Over 31,000 people were killed, over 80,000 homes were destroyed, more than 440,000 people were displaced and natural ecosystems, coastal infrastructure and health infrastructure were all damaged (Government of Sri Lanka 2005). Children suffered great loss and psychological trauma; 1200 children lost one parent, and 1000 lost both parents (Yamada, Gunatilake, Roytman, Gunatilake, Fernando & Fernando 2006). The public health system did not have coordinated plans for responding to a disaster of this magnitude, and existing disaster plans could not be located or immediately implemented (Yamada *et al.* 2006). However, the prevention of a communicable diseases outbreak was one success (Yamada *et al.* 2006).

In the time since the tsunami, the health system of Sri Lanka has improved significantly with the assistance of WHO but has still not been fully restored to the mainstream in tsunami affected areas, especially the north-east provinces (WHO 2006a). It is widely recognised that the development of a health emergency preparedness and response system is an urgent need (WHO 2006a). In response, the Government of Sri Lanka has recently finalised the legal framework to handle a future disaster.

2.4.8 Health financing and resource allocation

Throughout the last fifty years, total public expenditure on health averaged less than 2% of GDP, which is very low by international comparisons and the WHO recommendation of 5% (Abeykoon 2003). In Sri Lanka, the expenditure on health is less than most South East Asian countries, and is significantly less than developed countries (Table 5).

Table 5: National health expenditure as % of GDP in selected countries

Selected Asian countries		Selected high income countries	
Sri Lanka	3.2%	United Kingdom	6.8%
Philippines	3.6%	Japan	7.5%
Thailand	3.7%	Australia	8.3%
Bangladesh	3.9%	Canada	9.2%

Source: (Abeykoon 2003)

However, in recent years, the Total Expenditure on Health (TEH) has grown on average by 14% per year. The TEH per capita was Rs. 2,499 (US $ 31) in 2000 but increased to Rs. 3,152 (US $ 33) in 2002, equivalent to a total of Rs. 59.5 billion (nearly US$ 0.58 billion) or 3.8 % of GDP (Institute of Policy Studies of Sri Lanka 2005). In 1997, the respective shares of the government and the private sources were approximately 50% each (Institute of Policy Studies of Sri Lanka 2005). The Government's contribution in recent years has decreased. According to Sri Lanka National Health Accounts 2000–2002, in 2002, total government health expenditure amounted to 43% of the total healthcare costs of the people, while private sources financed Rs. 33.7 billion (US$ 0.33) equivalent to 57% (Institute of Policy Studies of Sri Lanka 2005). Due to the fluctuations of the level of inflation experienced in Sri Lanka, the actual allocation of healthcare funding is dependent on the sustainability of government funding for healthcare.

Even though the National Health Policy of Sri Lanka (1992) was based on the principles of Primary Health Care (PHC) (Ministry of Health 1992), the allocation of resources does not reflect those principles. The major portion of health expenditures is utilised by curative care services. In 2002, these services utilised 65% of the total public expenditure on health, while community health services accounted for only 9% (Ministry of Health Nutrition & Welfare 2003; Institute of Policy Studies of Sri Lanka 2005). The remaining amount was for administration and staff services and 3% was for local and overseas training (Ministry of Health Nutrition & Welfare 2002a). The allocation of human resources for both sectors shows an even greater

discrepancy between the distribution of health personnel in curative and preventive services (Table 6). Annual Health Bulletins of Sri Lanka indicate that despite a great increase in resources devoted to the curative health sector in the last 10 years, there has been little improvement of health services provision for the majority of people. This is mainly due to inadequate resources allocation for preventive health services.

Table 6: Distribution of health personnel in curative and preventive services (2005)

NOTE: This table is included on page 53 of the print copy of the thesis held in the University of Adelaide Library.

Source: (Ministry of Healthcare & Nutrition 2006)

In addition, there is a severe shortage of staff in both government and private health sectors. According to a recent study, 22% of nursing positions, 10% of public health midwives, 28% of public health inspectors and 44% of pubic health nursing sisters' positions were vacant in 1999 (Withanachchi & Uchida 2006). There is a considerable variability in the distribution of healthcare personnel across districts (for example, Colombo-112 doctors per 100,000 population, Moneragla (rural) - 26, Nuwara Eliya (estate) - 16 to less than 4 in Kilinochchi (rural, conflict-affected) (Withanachchi & Uchida 2006). Distribution of other health personnel shows similar geographical heterogeneity (Abeykoon 2002; Ministry of Health Nutrition & Welfare 2003; Withanachchi & Uchida 2006).

2.4.9 Future policy directions in Sri Lanka

The future directions of Sri Lankan healthcare policy should focus on three factors: the ageing population, primary healthcare, and healthcare management (Jayasekara & Schultz 2007). It is projected that the elderly Sri Lankan population will suffer increased morbidity from diseases common to this age group, such as cancer; cardiovascular; neurological and rheumatologic diseases as well as other physical, psychological, and cognitive problems. Early action against these emerging problems and developing services are required to address this issue. Such actions should include the addition of aged care concepts in undergraduate medical, nursing and allied health programs, and developing the speciality of geriatrics in post-graduate

medical and nursing education. It is also important to develop a national strategic plan for developing aged care services in Sri Lanka, providing government policy directions for a sustainable service (Jayasekara & Schultz 2007).

Despite the National Health Policy recommendations that the Community Health Nurse be part of the primary healthcare team (Ministry of Health 1992) basic level nurses are not currently included in the primary healthcare team due to the acute shortage of nurses and slow response by authorities. However, if Community Health Nurses could become part of the primary healthcare team, these nurses could provide home care to the sick and disabled, and educate individuals, families and communities about illness prevention, disease control and health promotion (Jayasekara & Schultz 2007). As has long been realised by many countries, establishing a strong community health nursing service is a major policy imperative for improving health status among women, children, disabled people, the elderly population and improving mental health of the community (Jayasekara 2001; Jayasekara & Schultz 2007).

The National Health Policy (1996) and the Strategic Framework for Health Development in Sri Lanka (2004-2015) are the fundamental Sri Lankan health policy documents (Ministry of Health Nutrition & Welfare 2003). Although these policy documents have guided national healthcare, community health indicators and health expenditure for preventative services have not significantly improved as discussed in this review. It is crucially important to incorporate public participation, culturally appropriate strategies and technology and inter-sectoral collaboration for developing sustainable strategies for improving healthcare (Jayasekara & Schultz 2007). Healthcare administration, funding and the training and education of healthcare workers should be restructured and developed to respond to health trends and issues in Sri Lanka (Jayasekara & Schultz 2007)

2.4.10   Conclusion

This review has shown that Sri Lanka has achieved a relatively high health status given its low level of spending on its healthcare services. However, Sri Lanka still experiences vital health problems among all stages of the life cycle, mainly due to lifestyle and the epidemiological transition with widespread societal and economic crises. Current healthcare services are understaffed and overly focused on curative

measures rather than prevention. The development of sustainable healthcare improvement strategies will be a strategic government investment of the highest importance. This evaluation of the current health situation and trends in Sri Lanka provides a policy direction for developing appropriate health service management, funding and staff development.

2.5 Nursing profession in Sri Lanka

2.5.1 Introduction

Understanding the evolution of nursing in a country provides perspective on the origins of current successes and dilemmas, and enables the development of strategies and plans for future trends in the profession. The purpose of this literature review was to explore the evolution of nursing services and nursing education in Sri Lanka and its impact on developing professionalism in nursing. Major challenges for the nursing profession in Sri Lanka are discussed with some recommendations, enabling the identification and development of an appropriate conceptual framework for nursing education in Sri Lanka.

2.5.2 Search strategies

The search strategy aimed to find both published and unpublished studies and text relevant to the development of the nursing profession in Sri Lanka. The literature search was conducted using MEDLINE and CINAHL and limited to articles in the English and Sinhala languages published between 1976 and 2006. As a next step, a general Internet search was performed. The following key words were used for both searches: history, nursing, education, services, health and Sri Lanka. Personal communication, unpublished reports, and government records and web sites were used to obtain historical information on nursing education and nursing service in Sri Lanka. The reference list of all identified reports and articles was searched for additional studies. Hand searching of relevant Sri Lankan journals and government reports was undertaken to reveal any additional literature.

2.5.3 History of nursing services in Sri Lanka

During the British period (1802-1947) several missionaries who arrived from different part of the United States of America and the United Kingdom were actively involved in the provision of health care (Banduthilake 2002). In 1878, the first of a succession of British nurses arrived in Sri Lanka (Ceylon) to initiate a training programme for indigenous women (Jones 2004). British Franciscan Missionaries of Mary established a nursing service in Sri Lanka by training the first batch of 23 nurses in 1886 (Munasinghe 2002). In 1892, a conflict emerged between Sri Lankan and Anglican nurses regarding religious beliefs, and as a result some Sri Lankan

nurses left the nursing service (de Silva 1978). Nevertheless, religious beliefs have not been strongly integrated into the nursing service in Sri Lanka.

The first record of any formal attempt at improving nursing services in Sri Lanka is from 1879. The first hospital-based government sponsored nurse training program commenced along with the opening of the first two maternity hospitals: the De Soysa Lying–in–Home (1879) and Lady Havelock Hospital (no longer in existence) (1886) (de Silva 1978). These hospitals and midwifery training programs for nurses contributed to the reduction of maternal and infant mortality rates in Sri Lanka (Uragoda 1987). The development of free health services led to a greater demand for nurses and nursing education in Sri Lanka.

2.5.4 Acute care nursing services

In Sri Lanka, the government health sector meets the demands of 60% of the total health care of the population, and 95% of in-patient care (Ministry of Health Nutrition & Welfare 2002a). The private health sector provides mainly curative services, and absorbs nearly 50% of the outpatient demands for health care (Munasinghe 2002). In the government sector, the network of acute care institutions ranges from sophisticated teaching hospitals with specialised consultative services to small local dispensaries which provide only out-patient services. The latest available information revealed that there were 607 medical institutions with in-patient facilities and 400 local dispensaries in 2003 (Ministry of Health Nutrition & Welfare 2003a). Institutions with in-patient facilities provide 59,262 beds and the national rate of beds for in-patients is 3.1 per 1000 persons (Ministry of Health Nutrition & Welfare 2003a).

Despite the efforts of the Ministry of Health, it is evident that major problems exist with the quantity and quality of nursing services in Sri Lanka. In 2007 it is estimated that the current nursing workforce numbers approximately 19,000, the largest health professional group in Sri Lanka; however, there is still an acute shortage of nurses in Sri Lanka (Ministry of Health Nutrition & Welfare 2002a). The shortage of nurses in Sri Lanka reflects a global trend and is a major issue in both public and private health care facilities. It is estimated that the shortage of nurses in the state sector is approximately an additional 25,000 and that in the private sector nearly 15,000 (Munasinghe 2002). It is understood that inadequate recruitment to the state nursing

schools by the Ministry of Health has been a long-standing problem; however these institutions are already hampered by limited facilities. It is also evident that most nurses in both sectors face poor working conditions, low wages and inadequate career development (Ministry of Health Nutrition & Welfare 2002a). This situation directly influences on quality of patient care.

The National Strategic Plan for Nursing and Midwifery Development 2001-2010, which was the outcome of discussion between senior administrators, trade unions, and nurses with technical assistance from the WHO, has proposed strategies to overcome many deficiencies that are currently experienced by nursing services in Sri Lanka. This plan emphasises issues in six key areas (i) quantity of nurses, (ii) quality of nurses, (iii) client satisfaction, (iv) job satisfaction, (v) career development, and (vi) policy development (Ministry of Health Nutrition & Welfare 2002a). It is apparent that authorities have been slow to implement this plan in full scale. Although it is more than halfway into the life of this plan, only a few recommendations have been implemented (e.g. recruitment of additional students for nursing schools, implementing 4-year BSc Nursing programs at university sector etc.).

2.5.5 Community health nursing services

The community health service in Sri Lanka was established in 1926 with the establishment of the National Institute of Health Sciences (NIHS). The main aim of this institute was to provide training courses to improve human resources required for the primary health care programme (Perera 1949). The first public health nurse was recruited to this institute in 1926 (de Silva 1978), however the positions of Public Health Nurses (PHN) were converted to middle level manager (Public Health Nursing Sister- PHNS) in primary health care activities in the early 1980s (Jayasekara 2001). The Ministry of Health attached this position to the Office of Medical Officer of Health to function in a supervisory and training capacity (de Silva 1996). Public Health Nursing Sisters are currently being prepared at the post basic level in the NIHS. However, these nurses have been divested of responsibility to the community, and authorities have been slow to recognise the importance of community nursing care (Jayasekara 2001). The Ministry of Health has come to realise the need for community health services (Ministry of Health 1992). This is evident from the report of the Presidential Task Force for the development of

National Health Policy (NHP)-1992, which recommended the re-establishment of the position of community nurse (Jayasekara 2001). However, the acute shortage of nurses and slow response by authorities means that little progress has been made for community nursing services. Although the NHP of Sri Lanka (1992) was based on the principles of Primary Health Care (PHC) (Ministry of Health 1992), the nursing curricula did not reflect this focus (Cameron 2001) and there was inadequate emphasis on community health care (Jayasekara 2001).

2.5.6 Regulation of nursing profession

In many South East Asia Region counties (Bangladesh, India, Maldives, Myanmar, Nepal and Thailand) nursing and midwifery councils have been established, with varying degrees of effectiveness in terms of public protection and strengthening of nursing and midwifery workforce management (WHO 2002). The ratification of the Sri Lanka Nursing Council Bill (SLNC) first proposed in 1988, has not eventuated for various reasons (Munasinghe 2002). According to the SLNC Bill, it is aimed only at government sector nurses. However, this is not appropriate and the bill needs to include all sectors of health care (ILO 2002).

In Sri Lanka, private sector nurses are trained by private nursing schools. The major difference between the two sectors (government and private sectors) is the standard of the basic education in terms of periods of training and clinical practice settings. The Sri Lanka Medical Ordinance requires that nurses should register with the Sri Lanka Medical Council (SLMC). The certificate offered by private nursing schools is not recognised by the SLMC, therefore, the majority of workers who work as nurses in private sector hospitals and nursing homes are untrained or do not have a valid registration to practice as nurses (Munasinghe 2002; Ministry of Health Nutrition & Welfare 2002a). A valid registration for the private sector nurses is a major challenge; however, a single minimum standard for the nursing profession is required to ensure quality care is provided by nurses to patients regardless of whether the context is public or private facilities. Thus, it would be worthwhile considering setting up a single council with representations from both sectors (government and private) to be responsible for the regulation of nurses and accreditation of the education programs.

Currently, there is no mechanism for renewal or re-certification based on new competencies of nursing practice. A system should be implemented to renew the practicing licence for nurses. This would have benefits in terms of protecting the public, and maintaining the professional standards, and development of a career structure that will attract and retain nurses. The establishment of the SLNC with necessary amendments is considered urgent for improving nursing services in Sri Lanka.

2.5.7 Nursing administration

The senior nursing positions (nursing directorate) of the Ministry of Health in Sri Lanka (hospital services, public health, and education) were established in 1949, 1955, and 1960 respectively (Banduthilake 2002). These three nursing directorates are attached to three different Deputy Director Generals of Health Services (DDGHS). However, the unification of the main streams of nursing service is still not complete. Establishment of a Nursing Service Department with the post of Deputy Director General (Nursing & Midwifery), and a Nursing Advisory committee in the Ministry of Health, which were proposed in several reports of the Ministry of Health has not been implemented (Ministry of Health Nutrition & Welfare 2002a). A reason for this may be attributed to senior nursing officers including the nursing directorates not having adequate education in policy planning and strategic development (Munasinghe 2002). As a result, the extent to which they can effectively influence policy development is problematic. However, the Ministry of Health recently announced that the senior position of Deputy Director General (Nursing & Midwifery) will be appointed in the near future. Such a unified administration will contribute to the development of nursing and midwifery services in Sri Lanka

In the state sector the Nursing Minute (Nursing Constitution, 1977) of the Ministry of Health, which was amended in 1984, is the reference document on the human resource development in the nursing service. However, it does not provide guidance on administrative matters and strategies for professional advancement of the nursing service (Munasinghe 2002). For this reason, the current Nursing Minute, and administrative decisions of Health Ministry are always challenged by trade unions and nurses. It is also recognised that a certain degree of disillusionment exists within the nursing service because of delays by the Ministry of Health in resolving the

conflict rose from the Nursing Minute. The Nursing Minute is currently being amended to rectify these anomalies; however it is recognised that amendments do not reflect effective strategies for professional advancement of nursing services.

2.5.8 Nursing education in Sri Lanka

In Sri Lanka, nursing education is currently taking place in separate nursing schools and universities. Being government institutions, schools of nursing are attached to the Ministry of Health (MOH), while universities are managed by the University Grant Commission (UGC) and Ministry of Higher Education in Sri Lanka. Currently, pre-registration nursing education in Sri Lanka is based on a three-year certificate level nursing program in schools of nursing and four-year Bachelor of Science (B.Sc.) in nursing programs at universities. The post-registration nursing education is taking place in the Post Basic College of Nursing in Colombo. Although there was a Master of Nursing Science (MNSc) program during 2000-2002, currently there is no postgraduate nursing program in Sri Lanka. There are large numbers of private sector nursing schools, however, these are not considered as recognised nursing schools by the MOH and the Sri Lanka Medical Council due to inconsistency of program durations and standards.

2.5.8.1 Pre-registration nursing education in schools of nursing

Early nursing services were influenced strongly by the British nursing tradition characterised by an apprenticeship style of nurse training (Stein-Parbury 2000). Hospital based nursing education in Sri Lanka adopted this apprenticeship model, however this model has since been replaced by the transfer of nursing education into separate nursing schools. The first institutionalised nurse training commenced in 1939 with the establishment of the School of Nursing in Colombo (de Silva 1978). In 2006, 11 schools of nursing throughout the country provide a three year certificate level pre-registration nursing education. Schools of nursing follow a national level curriculum that provides a national framework for nursing schools' education in Sri Lanka.

This program offers greater student status and emphasis on education than the previous hospital based training. Both Virginia Henderson's and the International Council of Nurses' (ICN) definition of nursing were used as the foundation of the three-year nursing program (Cameron 2001). The current three-year general nursing

curriculum consists of 20 theory courses based on traditional medical model subjects such as medical, surgical, paediatric, psychiatric, and maternal nursing. The major aim of this program is to prepare general nurses for employment in the national health care system.

In 1997, the Japan International Cooperation Agency (JICA) established the National School of Nursing, the 11th nursing school in Sri Lanka. This school was considered as a model school in terms of improving basic nursing education in Sri Lanka. However the project created a gap between the model school and the ten other schools especially with regard to infrastructure (JICA 2002). Although the curriculum of this new school was similar to other nursing schools, JICA nursing education experts attempted to introduce new teaching techniques to improve nursing education in all nursing schools. The JICA (2002) report reveals that the strategies of improving nursing education using the model nursing school have not been fully realised due to under-utilisation of educational materials and educational management in the other non-model schools.

The entry qualification for nursing was upgraded to 13 years of formal education (advanced level/high school graduates) in 1992. Although the existing nursing curriculum was revised in 1995 and endorsed in 1999, it has not been updated for admission of high school graduates. Because, there has been no other competitor for nursing education in Sri Lanka and therefore no impetus for the nursing schools to change over the decades (University of Peradeniya 2000). Despite all the literature in nursing being available in English language, the medium of instruction in the nursing schools is still in Sinhala language introduced in 1959 (de Silva 1978). This situation creates a barrier to foreign employment and educational opportunities for Sri Lankan nurses and to the academic development of nursing, especially compared to medicine.

2.5.8.2 University nursing education

The University of Ceylon proposed a five-year nursing diploma program in 1963 (de Silva 2004), however the program was not implemented. University education for Sri Lankan nurses was next advocated in 1968 (Carey & Dier 1995) and was supported by The International Council of Nurses and the World Health Organisation, who recommended that nurse education should be based on the higher tertiary education system (Cameron 2001). However, it was not until 1994 that university education for

nurses was introduced in Sri Lanka (Fernando 2005). Several proposals for establishing university based education for nurses had been proposed by nursing leaders and authorities but were not acted on. (e.g. *"The case for an undergraduate program in nursing in the University of Ceylon"* (1967); *"A narrative program proposal for the development of a baccalaureate degree program in nursing at the University of Sri Lanka"* (1977) (de Silva 2004).

Currently, there are two types of nursing degree programs available in Sri Lanka. Three conventional universities in Sri Lanka recently established pre-registration four-year degree programs leading to B.Sc. in Nursing. The Open University provides a B.Sc. in nursing program for registered nurses of the Ministry of Health, Sri Lanka as a post-registration program. This program provides registered nurses an opportunity to upgrade their current qualification to degree level.

2.5.8.2.1 Pre-registration B.Sc. Nursing programs

The National Health Policy (1992) proposed that nursing education should be upgraded to the degree level (Ministry of Health 1992). This recommendation was reiterated in The National Strategic Plan for Nursing and Midwifery Development (NSPNMD) 2001-2010). As a result, the University Grants Commission (UGC) in Sri Lanka announced that three universities (University of Sri-Jayewardenepura, University of Peradeniya and University of Jaffna) offer a four-year degree programs leading to B.Sc. in Nursing for 2006/2007 university admission of high school graduates (University Grant Commission 2007).

The first pre-registration B.Sc. Nursing program was commenced in the University of Sri-Jayewardenepura. The Faculty of Medical Sciences at the University of Sri-Jayewardenepura was established in 1992 to provide undergraduate education in medicine, nursing and other allied health sciences. The four-year BSc in Nursing degree program was commenced on August 2005. Currently, five lecturers are appointed to this program and three of them have Master degrees in nursing. The annual intake of students is 25.

In 2000, University of Peradeniya proposed to established a nursing school at the Faculty of Medicine (University of Peradeniya 2000). However, the government decided to commence university B.Sc. programs in selected universities for allied health sciences including nursing in university admission for 2005/2006 (University

Grants Commission 2005). University of Peradeniya enrolled allied health students into the Faculty of Medicine in 2006; however these programs were not fully functional due to various reasons (e.g. a lack of nurse lecturers, objection of medical students). Subsequently, the UGC approved a new Faculty for Allied Health Sciences for the University of Peradeniya and it was inaugurated on January 2007. The new faculty consists of five departments that offer undergraduate programs in nursing, pharmacy, physiotherapy, radiotherapy/radiography and medical laboratory sciences (University of Peradeniya 2007). The aim of the B.Sc. Nursing program is to enable the student, through a mix of theoretical and practice-based modules, to become compassionate, caring, competent and critically aware practitioners of nursing (University of Peradeniya 2006). Currently most courses of allied health degree programs are managed by medical lecturers due to a dearth of qualified allied health professionals in the country. However, a total number of 100 students are currently enrolled in the B.Sc. Nursing program.

Although the UGC announced the enrolment of students for B.Sc. Nursing program at the University of Jaffna, currently no information can be traced in the university web site or general internet search in regards to this program. In 2004, the UGC approved a new Faculty for Healthcare Sciences at the Eastern University of Sri Lanka to establish health science degrees (Mendis 2004). The first MBBS program of this new faculty commenced in 2006, and the faculty is working toward establishing nursing and other health sciences degree in the future (EUSL 2006).

2.5.8.2.2 Post RN BSc Nursing program

In Sri Lanka, the first nursing degree program was established at the Open University of Sri Lanka (OUSL) in 1994 under the Department of Health Sciences of the Faculty of Natural Sciences. Academic assistance was provided by the Athabasca University, Canada through a 5-year programme funded by the Canadian International Development Agency (1992-1997). This program prepares generalist nurses for leadership roles in hospitals and the community, administration, supervision, teaching and research within the context of current health needs (OUSL 2006). This post RN degree program is offered by distance mode for registered nurses with a minimum of 2 years' experience (OUSL 2006). The first 2 years of the degree programme at Levels 3 & 4 are exempted for registered nurses (who would otherwise have to follow the course for 4 academic years). They are required to

pursue only the final 2 years of the program at Levels 5 & 6. A curriculum for Levels 3-4 has already been approved for implementation in the four-year nursing degree program that recruits high school graduates (Dharmaratne *et al.* 2006).

The Post RN B.Sc. nursing degree has 13 compulsory courses along with an open elective under which six courses are offered (OUSL 2006). The students have the option of selecting any course of their choice from these six courses. The curriculum of the program is guided by the principles of primary healthcare as outlined by the WHO in 1998 (OUSL 2006). However, a curriculum review team noted that the curriculum has not been revised since its inception in 1994 (Dharmaratne *et al.* 2006). In 2001, a Canadian nursing consultant revised five courses of this curriculum and subsequently recommended a review of another two courses, however it was not possible due to inadequate funds, staff and subject experts (Dharmaratne *et al.* 2006).

There are currently about 200 annual admissions to the B.Sc. Nursing program (Dharmaratne *et al.* 2006). However, the curriculum review team also noted that only 204 out of 500 registered students have completed their degree from 1997 to 2005 (Dharmaratne *et al.* 2006). The possible reasons for this situation may be the distance mode of study, which produces challenges for many students because of workload, the language of instruction (English), the teaching-learning methodology, and their own personal and professional commitments (Withanarachchi 2001). Furthermore, this program is hampered by a severe shortage of academic staff. The permanent academics in this program are confined to one senior lecturer and two probationary lecturers. The senior lecturer is the only staff member with a Masters degree in nursing.

2.5.8.3 Post-registration nursing education

The role of nursing changed dramatically with the development of nursing schools. As a result, the Post Basic School of Nursing (currently Post Basic College of Nursing) was established in 1960 in the School of Nursing, Colombo. In addition to this school, the Eastern University of Sri Lanka established a similar program in 1997 that was funded by the Swedish International Development Cooperation Agency (SIDA) (EUSL 2006). This program provides opportunities for remote area Tamil speaking nurses to access post basic nursing education.

These two institutions provide diploma level nursing education in Ward Management and Supervision program for registered nurses to become ward sisters (nurse managers). In addition, the Post Basic College of Nursing provides a Diploma in Teaching and Supervision program for registered nurses to become tutors (nurse educators) in schools of nursing. The duration of both programs is 18 months, including a six-month midwifery course for female nurses, and a six-month psychiatric nursing course for male nurses. The curricula of the post basic diploma have not been regularly updated and these courses do not reflect current needs of the profession at clinical and management levels (Jayasekara & McCutcheon 2006). Post basic nursing education is constrained in its ability to produce nurse managers and nurse tutors and to provide short courses for nurses in specialty areas such as intensive care, paediatric and infection control. However, it is recognised that post basic nursing education should be developed to provide specialist clinical nursing education to improve the quality of nursing care. The National Strategic Plan for Nursing and Midwifery Development (NSPNMD, 2001-2010) proposed that the Post Basic School of Nursing should be upgraded to a Postgraduate Institute of Nursing and Midwifery (PGINM) to improve postgraduate nursing and midwifery education and to establish clinical specialisations (Ministry of Health Nutrition & Welfare 2002a). However, the establishment of a PGINM depends on the process of transferring nursing education to the university system.

2.5.8.4 Postgraduate nursing education

The absence of nursing from the university sector was a major constraint to establishing sound postgraduate nursing education in Sri Lanka. In response to this, in 2000 a Master of Nursing Science (MNSc) program was introduced as a three-year WHO sponsored project under the academic auspices of the University of Adelaide, South Australia. This program introduced an evidence-based approach to the nursing service in Sri Lanka (Jayasekara 2003). The major aim of this program was to establish a future faculty for university nursing education; however this program was discontinued after the second intake due to inadequate coordination of accessing WHO funds for the program. As a result, 20 Masters-qualified nurses out of a proposed 30 completed the program. The aim of this program was not totally accomplished because universities are reluctant to absorb these graduates for tenured positions as this Masters degree (MNSc) is not recognised as a research degree by universities in Sri Lanka.

In response to this issue, the Department of Health Sciences at the Open University, Sri Lanka has already established several links with foreign universities to initiate a postgraduate two-year research degree program (Dharmaratne *et al.* 2006). In addition to a major research study, this course provides four theory courses (Qualitative and Quantitative Health Research Methods, Bio and Medical Statistics, Literature Review and Clinical Field Studies) enabling students to improve their theoretical background of research (Dharmaratne *et al.* 2006). However, only one academic staff member of this department holds a Masters degree in nursing.

The Ministry of Health has sponsored several nurses for study abroad at graduate and postgraduate level in the past. It is estimated that in 1993 approximately 17 nurses had baccalaureate preparation while four had Masters (Cameron 2001). The B.Sc. in Nursing program at the Open University graduated 204 nurses from 1994 to 2005. Twenty-five of these nurses obtained a Masters degree in Nursing (including 20 M.N.Sc. graduates from the University of Adelaide), and only one nurse is currently enrolled in a PhD program. Table 7 shows the distribution of Masters qualified nurse educators in nursing education institutions in Sri Lanka.

Table 7: Distribution of Masters qualified nurse educators in nursing education institutions in Sri Lanka in 2006

Institution	No. of academics	No. of Master qualified
Open University	3	1
University of Sri-Jayewardenepura	5	3
University of Peradeniya	Nil	Nil
University of Jaffna	Nil	Nil
Schools of Nursing (n=11)	164	6

It was revealed that there is a severe dearth of qualified nurse educators for senior nursing academic positions in Sri Lanka; however, few nurse educators are currently enrolled in postgraduate research degrees in local and foreign universities (Master by Research= 1, Master of Philosophy= 2, Doctor of Philosophy= 1). This number is not adequate compared to current and future needs of nursing programs in the Sri Lankan university sector. Urgent steps need to be taken to increase the number of postgraduate qualified nurse academics in the university sector by providing scholarships and funds for their research programs.

2.5.9 Conclusion

Throughout the history of nursing in Sri Lanka it has been recognised that nurses are a crucial part of the workforce delivering health services to the nation in terms of caring for patients, preventing illnesses and promoting the health status of the nation. However, it can be concluded that there has been considerable delay by the profession in asserting their professional status within the health sector. There has been minimal effort to improve the standards of nurses' education, mainly due to inadequate and disjointed involvement of those who are responsible for improving the health services in Sri Lanka. However nursing services and education in Sri Lanka are under scrutiny as nurses today show more concern about their professional roles, education and status. In the future more than ever, nurses will need a solid university education, assertiveness skills, technical competence and ability to deal with a rapidly changing health care environment.

Chapter 3   Systematic reviews

3.1 Introduction

Standard literature reviews, for so long the basis of an introduction to a study or a thesis, are at risk of bias because the review author can preferentially include studies that support a particular view or approach (Antman, Lau, Kupelnick, Mosteller & Chalmers 1992; McAlister, Clark, van Walraven, Straus, Lawson, Moher & Mulrow 1999; Montori, Swiontkowski & Cook 2003). In comparison, a systematic review is defined as a review of scientific studies that uses explicit, systematic and therefore reproducible methods to locate, select, appraise and synthesise relevant and reliable evidence (NHS 2001) that – in the case of systematic reviews of quantitative studies – minimise the potential for bias. The systematic review is the core of the evidence-based practice process (Pearson 2004), and it is a form of research (NHS 2001; Pearson & Field 2005; White & Schmidt 2005). Systematic reviews are considered as the highest level of evidence (Level I) (NHMRC 1999), and are used to inform policy and decision-making in organising and delivering health and social care (NHS 2001). The systematic review has been recently introduced into the nursing discipline, and it is well recognised that establishing this approach within the profession is highly important to embracing evidence-based practice.

The aim of the following two systematic reviews was to examine the best available evidence on undergraduate nursing curriculum models. The first systematic review was conducted to appraise and synthesise the best available evidence on the effectiveness and appropriateness of undergraduate nursing curricula models. The second systematic review analysed the best available evidence on the feasibility and appropriateness of introducing nursing curricula from developed countries into developing countries. The findings of the two reviews were used to formulate the conceptual framework for undergraduate nursing curricula in Sri Lanka and as a constant reference point for comparison with the results of stakeholder focus group discussions   and   theoretical   consideration   of   curriculum   development.

Systematic review 1

A comprehensive systematic review of evidence on the effectiveness and appropriateness of undergraduate nursing curriculum models

3.1.1 Executive summary

3.1.1.1 Objectives

The objective of this review was to appraise and synthesise the best available evidence on the effectiveness and appropriateness of undergraduate nursing curriculum models.

3.1.1.2 Inclusion criteria

This review considered research papers that addressed the effectiveness and appropriateness of undergraduate nursing curricula. Studies of higher evidence levels were given priority over lower evidence studies. Participants of interest were nursing staff, nursing graduates and students and health care consumers. Nursing staff outcomes, consumer outcomes, and system outcomes (e.g. competency, satisfaction, critical thinking skills, health care consumer rights and cost effectiveness) that impact on the evaluation of undergraduate nursing curricula were considered in the review.

3.1.1.3 Search strategy

The search strategy sought to find both published and unpublished studies and reports limited to the English language. An initial limited search of MEDLINE and CINAHL was undertaken, followed by an analysis of the text contained in the title and abstract, and of the index terms used to describe the article. A second extensive search was then undertaken using all identified key words and index terms. Finally, the reference list of all identified reports and articles was searched for additional studies.

3.1.1.4 Methodological quality

Each paper was assessed by two independent reviewers for methodological quality prior to inclusion in the review using an appropriate critical appraisal instrument from the SUMARI package.

3.1.1.5 Results

A total of 16 papers, experimental and textual in nature, were included in the review. The majority of papers was descriptive and examined the relationships between nursing curricula and specific learning outcomes such as critical thinking skills. Due to the diverse nature of these papers meta-analysis of the results was not possible and this section of the review is presented in narrative form. In this review, four undergraduate nursing curriculum models were identified: integrated curriculum, subject-centred curriculum, problem based learning, and an integrated critical thinking model. It was possible to examine the effectiveness of an integrated curriculum model and a subject-centred curriculum model; however, the other two models could not be compared due to a lack of evidence.

3.1.1.6 Conclusion

The evidence regarding the effectiveness and appropriateness of undergraduate nursing curricula is notably weak due to the paucity of high quality comparative studies and meaningful outcome measures of available studies. Therefore no strong conclusion can be made regarding the effectiveness and appropriateness of undergraduate nursing curricula.

3.1.1.7 Keywords

Nursing education, Undergraduate curricula, Systematic review, Problem based learning, Critical thinking

3.1.2 The Comprehensive systematic review

3.1.2.1 Introduction

The purpose of this systematic review was to identify evidence of the effectiveness and appropriateness of models of undergraduate nursing curriculum models. Due to the complexity of the topic, the review located all forms of research, including correlational studies and expert opinions. The System for the Unified Management, Assessment and Review of Information (SUMARI), software of the Joanna Bridge Institute (JBI) was used to assist with the review.

3.1.2.2 Background

After the 1960s the nursing profession began to make considerable efforts to develop nursing knowledge based on a nursing framework because nursing leaders wanted to develop nursing as an independent profession and realised that nursing needed its own framework to guide nursing education, practice and research (Chinn 1983; Newman 1983; Rogers 1989). As a result, during the 60s and 70s various nursing theories/ models were developed. The knowledge explosion made nursing educators aware of the inadequacy of traditional nursing curricula based on the medical model and developed nursing curriculum frameworks that provided unifying concepts across the curriculum.

Globally, nursing services and nursing educators are seeking better ways to prepare nurses for practice in health services that are constantly changing. Consumer expectations have increased in relation to the quality of care they receive and the delivery of nursing can no longer be based on tradition but rather requires a contemporary approach to care that is underpinned by evidence. It is therefore essential that nursing curricula reflect the rapidly changing technologies, dramatically expanding knowledge, changes in the practice environment and incorporate theory, science, professional standards and consumer expectations (Young, Urden, Wellman & Stoten 2004). Reforms in nursing education have led to intense debate on developing appropriate curricula for baccalaureate nursing education based on a nursing model (AACN 1998). The major focus of the curriculum revolution is the preparation of graduates with new and different perspectives and abilities, to face a rapidly changing health care environment

(MacLeod & Farrell 1994). It is suggested that the content of curricula needs to be re-examined using an evidence-based approach to meet the needs of professional nurses (Kessenich, Guyatt & DiCenso 1997).

A number of nursing curriculum models/frameworks can be identified, such as the nursing process (McEwen & Brown 2002), five components model (AACN 1998), community model, health promotion model, nursing diagnosis model, case management model and caring model (Hegge 1995), nursing model, spiral model and experiential model (Crotty 1993), client systems model, growth and developmental stages model, health-illness model, and nursing roles model (Sohn 1991). These models have been used by thousands of baccalaureate nursing educators to develop, define, and revise nursing curricula. However, there are limited studies that investigate the effectiveness of these models.

3.1.2.3 Objectives

The objective of this review was to appraise and synthesise the best available evidence on the effectiveness and appropriateness of undergraduate nursing curriculum models.

3.1.2.4 Review method

3.1.2.4.1 Inclusion criteria

The following inclusion criteria were used to determine which papers were to be included in the review, and papers that met all of the inclusion criteria were retrieved and assessed for quality.

3.1.2.4.1.1 Types of studies/papers

This review considered research papers that investigate the effectiveness, and appropriateness of undergraduate nursing curricula. Papers of the highest level of evidence rating (levels I-II) were given priority and included: meta analyses, randomised controlled trials, quasi-randomised controlled trials, cohort studies, case control studies, descriptive studies, correlational studies, interpretive studies and critical studies.

As limited studies were identified, discussion papers or reports that addressed the effectiveness and appropriateness of different models of undergraduate nursing curricula were considered.

3.1.2.4.1.2 Types of participants

The review considered studies that include all level nursing staff, nursing graduates and students, and health care consumers.

3.1.2.4.1.3 Types of interventions

All papers evaluating the effectiveness and appropriateness of different models of undergraduate nursing curricula were considered for inclusion in the review. For example, different models of undergraduate curricula include problem based learning, integrated critical thinking and subject-centered models.

3.1.2.4.1.4 Types of outcomes

Outcomes measures were divided into three groups: nursing staff (including undergraduate nurses) outcomes, consumer outcomes, and system outcomes.

Nursing staff outcomes included the competency of the graduates and positive perceptions of the work environment, job and role satisfaction, positive inter-staff and client-nurse relationships, critical thinking skills and decision-making abilities. Consumer outcomes included the promotion of physical and mental well-being, consumer satisfaction, and protection of consumer rights. In system outcomes, cost effectiveness and delivery of quality health care and appropriateness of curricula models were included.

3.1.2.5 Search strategy

The aim of the search strategy was to find both published and unpublished studies and text. The search was limited to English language publications. A three-step search strategy was utilised in the review. An initial limited search of MEDLINE and CINAHL was undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken. Thirdly, the reference lists of all identified reports and articles were searched for additional studies. Hand searching of relevant journals such as Journal of Nursing Education, Nurse Educator, Nurse Education Today and conference proceedings were undertaken to reveal additional literature and unpublished studies.

The databases searched in the second stage included:

MEDLINE (1966 to June 2005)

CINAHL (1982 to June 2005)

ERIC (to June 2005)

Cochrane (to June 2005)

Expanded Academic Index (to June 2005)

Current Contents (to June 2005)

Embase (to June 2005)

The search for unpublished studies included:

Dissertation Abstract International (to June 2005)

Index to Thesis (to June 2005)

WWW sites of relevant associations (e.g. local and international nursing and health organisations) (to June 2005)

All papers identified during the database search were assessed for relevance to the review based on the information provided in the title and abstract. The full report of the paper was retrieved if the paper appeared to meet the inclusion criteria. After the full report of a paper was retrieved, it was again assessed against the inclusion criteria in order to determine its relevance to the review objective.

3.1.2.6 Assessment of methodological quality

Identified studies and papers that met the inclusion criteria were grouped into one of the following categories:

Experimental studies;

Descriptive studies;

Descriptive-correlational studies;

Interpretive studies;

Critical studies; and

Text / opinion papers

Each paper was assessed by two independent reviewers for methodological quality prior to inclusion in the review using standardised critical appraisal instruments from the System for the Unified Management, Assessment and Review of Information Package (SUMARI) (Appendix 1). Any disagreements that arose between the reviewers were resolved through discussion and if necessary with the involvement of a third reviewer.

3.1.2.7 Data collection

Following assessment of methodological quality, papers were grouped according to study methodology, opinion and other text. The quantitative data were extracted from papers included in the review using the standardised data extraction tool from the JBI Meta Analysis of Statistics: Assessment and Review Instrument (JBI-MAStARI). The qualitative data were extracted using the JBI Qualitative Assessment and Review Instrument (JBI-QARI). The opinion and other text data were collected utilising the JBI Narrative, Opinion and Text Assessment and Review Instrument (JBI-NOTARI) (Appendix 2).

3.1.2.8 Data analysis

3.1.2.8.1 Quantitative data analysis

It was planned, where possible, for quantitative research study results to be pooled for statistical meta-analysis using Review manager software from the Cochrane Collaboration (Review manager V4.04). All results were to be double entered. Odds ratio (for categorical data) and weighted mean differences (for continuous data) and their 95% confidence intervals were to be calculated for each analysis. Where possible, heterogeneity between comparable studies was to be assessed using the standard Chi-square analysis.

3.1.2.8.2 Qualitative data synthesis

Data synthesis of qualitative data was performed using the JBI-QARI and JBI-NOTARI software packages. The process of meta-synthesis embodied in these programs involves the aggregation or synthesis of findings/conclusions made in relation to the intervention, activity or phenomenon that is the subject of the review. The aim of the process is to generate a set of statements that represent aggregation through assembling the findings or conclusions rated according to their credibility (Appendix 3), and categorising these findings/conclusions on the basis of similarity in meaning. These categories are then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesised findings that are used as a basis for evidence-based practice.

3.1.2.9 Results

3.1.2.9.1 Description of papers

A total of 241 papers were identified as potentially relevant to the review question in the first and second steps of the literature search. Based on the title and abstract of the papers, 10 papers and five theses that were relevant to the review topic were retrieved for evaluation of methodological quality. Three papers and one thesis were excluded due to incongruity with the review objectives, and/or outcomes (Appendix 4). In the reference list search of selected studies (*n*=11), one paper met the inclusion criteria. In the Internet search for unpublished studies, two systematic reviews and two reports were selected for the review.

A total of 16 papers were included in the review as follows:
 - 2 systematic reviews
 - 4 experimental studies
 - 7 descriptive-correlational studies, and
 - 3 textual reports

The included papers provide a variety of curricula evaluation instruments and different outcome measures. Meta-analysis was not possible due to the different out comes, control groups and interventions of the selected studies. This evidence is therefore presented in a narrative summary.

3.1.2.9.2 Reviews of nursing curricula

Two systematic reviews evaluating the effectiveness of nursing curricula and one textual report on nursing curricula were identified (Fitzgerald et al. 2001; McKinley et al. 2001; Clare, White, Edwards & van Loon 2002).

A systematic review focusing on nursing curricula, undergraduate clinical education and transition support for new graduates considered all studies addressing nursing curricula (Fitzgerald *et al.* 2001). One review question focusing on the effectiveness of the different models of nursing curricula was similar to this review. The outcomes of interest from experimental or evaluation studies included successful completion, knowledge acquisition, competence, cost, student satisfaction, employer satisfaction, and other indicators identified in the research literature (Fitzgerald *et al.* 2001). This systematic review revealed six themes pertinent to nursing curricula, however no theme was found in the area of effectiveness of different models of curricula. The

review reported that studies addressing nursing curricula were small scale, fragmented, and few attempts had been undertaken to evaluate the success of nursing curricula (Fitzgerald *et al.* 2001). This review failed to find sufficient evidence on the effectiveness of nursing curricula; however, the authors recommended that large multi-center collaborative research is necessary to determine the effectiveness of most aspects of nursing curricula.

Another systematic review on models of nursing education and training examined the effectiveness of various models of nursing education (McKinley *et al.* 2001). The review used strict evidence criteria, and 89 papers were selected; these were mainly comparative studies of educational methods. Theses were not included in the review because of time restraints. The outcomes of interest were patient care outcomes, student learning outcomes, and educational outcomes. The review revealed that there was only strong evidence for the following models of educational practice in nursing; the use of clinical practice as a learning environment and computer assisted learning in combination with traditional approaches to teaching and learning (McKinley *et al.* 2001). The review noted that the evidence regarding broad models of nursing education was only low-level and notably weak and that outcome measures of nursing educational studies were often irrelevant (McKinley *et al.* 2001). This review also failed to find evidence to recommend any particular model of nursing education currently in use in Australia.

The Australian Universities Teaching Committee's (AUTC) commissioned study on nursing education consulted key nursing education stakeholders via three networks of experts, 21 national focus groups, four national graduate and employer surveys, five discussion papers, and undertook extensive document analysis of 26 current undergraduate nursing curricula in Australia (Clare *et al.* 2002). The major aim of the study was to gain critical feedback in relation to efficacy of current models and strategies, processes and outcomes and locate best available evidence for Australian nursing curricula. This report revealed a lack of research based evidence for the effectiveness of existing curriculum models in nursing education, and no evidence was found to support the development of a national curriculum for nursing education in Australia. This report also found that there was no clear evidence regarding the extent to which competencies need to be achieved by nursing graduates or any indication about whether or not one domain is more important than others. It is,

therefore difficult to measure the effectiveness of competencies that should be addressed in nursing curricula. The report outlined broad and well-accepted principles for curriculum design for undergraduate nursing education. Based on findings of the study, the authors provided broad recommendations for nursing curricula. The provision of opportunities for independent, critical and reflective processes of learning were recommended as a strategy for improving teaching and learning (Clare *et al.* 2002).

The three studies summarised here are Australian studies evaluating the effectiveness of nursing curricula. No systematic review of nursing curricula was found for other countries. The three studies highlighted the lack of research evidence for the effectiveness of existing curriculum models in nursing education.

3.1.2.9.3 Effectiveness of curriculum models

The systematic review identified several small studies, discussion papers and narrative accounts of the effectiveness of undergraduate nursing curricula. After analysing the selected papers, four undergraduate nursing curriculum models were identified, namely: the integrated model, the subject-centred model, the problem based learning model, and the integrated critical thinking model. Three experimental studies compared the effectiveness of integrated model and subject-centred model, and two descriptive studies evaluated the effectiveness of the integrated curriculum model. Three studies, including a systematic review, evaluated the effectiveness of problem based learning curriculum model. Three studies including one textual report investigated the effectiveness of integrated critical thinking model. The purpose of the following discussion is to determine the effectiveness of the above four nursing curriculum models. Two studies included in the review examined how to develop future nursing curriculum models in nursing.

3.1.2.9.3.1 Integrated model vs. subject-centred model

The integrated model and subject- centred model of nursing curricula are both widely used models in nursing education programs. Five studies were found regarding the effectiveness of these two curricula models. Three experimental studies compared the effectiveness of both models, and two descriptive studies evaluated the effectiveness of the integrated model. An integrated model is generally organised in a way that cuts across subject-matter lines, bringing together various aspects of the

curriculum into meaningful association to focus upon broad areas of study (Patenaude-Lockett 1994).

A quasi-experimental study compared the level of achievement of physical assessment skills of senior baccalaureate nursing students utilising a subject-centred approach and an integrated curriculum model (Patenaude-Lockett 1994). The subjects (n=87) were senior nursing students in a National League of Nursing accredited baccalaureate nursing program. One group (n=35) of students was enrolled in a comprehensive physical assessment course included curriculum, and the other (n=52) students acquired physical assessment instruction in an integrated curriculum format. Data were collected from the two groups using a pre-and post-test and a physical assessment practicum examination. The data revealed that there was no statistically significant difference between physical assessment practicum examination scores for the two groups (p=0.081). The data indicated, however, that the retention of theoretical concepts was statistically significantly higher for those students in the comprehensive physical assessment course (p=0.01). Along with other previous studies, the author suggested that some components of nursing education such as mental health concepts are facilitated in the integrated approach, and other components of nursing education, particularly physical assessment and child health concepts are best presented in the subject-centred format.

A quasi–experimental design was used to evaluate the effectiveness of the new integrated ageing content curriculum compared to a former curriculum with designated ageing course (Jansen & Morse 2004). The sample comprised nursing students (total n_1 =156, n_2=145 measured on three occasions), and the instrument was a questionnaire on attitudes toward working with the elderly. One-way analysis of variance and post hoc comparison using Scheffe tests were used to analyse the data. The results revealed that no statistically significant differences in attitudes were found between the former and new curriculum groups at any of the time points (Time 1: p=0.49, and Time 3: p=0.18) using independent samples t-test. The author suggests that having a specific course would not seem to be necessary, as long as this content is incorporated into other components of the curriculum.

A quasi-experimental study design was also used to evaluate the effect of a curriculum change on anxiety and on the diagnostic reasoning ability of senior undergraduate nursing students (Briody 1996). The control group consisted of senior

students (n=13) who followed the traditional diseased-focused, body-system (subject-centred) model of nursing curriculum. The experimental group consisted of senior students (n=26) who enrolled into the new integrated nursing model curriculum. Spielberger's State/Trait Anxiety Inventory and Gordon's Diagnostic Reasoning Test were utilised to measure students' anxiety and diagnostic reasoning ability respectively. Comparison of control and intervention group scores by independent t-test demonstrated that the intervention group students had significantly less State anxiety than the control group ($t_{(36)}$ =2.31, p<0.05), however there was no statistically significant difference between groups for Trait anxiety. The Diagnostic Reasoning Test data revealed no statistically significant difference between groups in knowledge of nursing diagnosis language and concepts. However comparison tests found statistically significant better inferential ability by the intervention group on vignette 2. Based on this small study, the authors concluded that the students enrolled in the new integrated nursing model curriculum were less anxious and somewhat improved in their ability to infer nursing diagnoses.

A descriptive correlational design was used to evaluate the effectiveness of the Neuman System Model as an integrated theoretical framework for baccalaureate nursing programs (Fulton 1992). The degree of student integrated learning was measured as the outcome. Ten baccalaureate nursing programs using the Neuman System Model, and 94 senior nursing students from these programs participated in the study. The evaluation method was a case study with nursing care plan. The author noted that the case study used in this study included all five variables of the Neuman System Model (physiological, psychological, socio-cultural, development and spiritual). The results of this study revealed a positive relationship (p=0.044) between the integrated nursing curriculum and integrated student learning. However the use of a single nursing theory as a framework for nursing programs is controversial.

A descriptive survey on integrated liberal education in baccalaureate nursing education explored the perception of nurse educators of their programs' effectiveness in meeting the American Association of College of Nursing (AACN) outcomes (e.g. reading and writing ability, mathematics, ethics, history etc.) (Leen 1990). A survey was conducted within 50 baccalaureate nursing programs stratified by institution type. The respondents rated the effectiveness of their liberal education programs in

meeting a majority of the AACN recommendations. A majority of the respondents reported that liberal education was integrated throughout the four-year curriculum. Based on some institutional recommendations, the author suggested that a unified, integrated approach to weave liberal education throughout the undergraduate curriculum should be implemented.

Based on above findings, it is difficult to draw a conclusion regarding the effectiveness of integrated versus subject-centred approaches in undergraduate nursing curricula.

3.1.2.9.3.2 Problem based learning curriculum model

Problem Based Learning (PBL) is a widespread educational approach to professional education internationally. Part of a systematic review, a descriptive study and a project report focusing on the effectiveness of problem-based learning (PBL) were included in the review.

A systematic review focusing on nursing curricula, undergraduate clinical education and transition support for new graduates considered styles of learning in undergraduate curricula (Fitzgerald et al. 2001). The systematic review considered three studies addressing the effectiveness of PBL curricula. Based on the findings of these studies, the review concluded that the use of a problem based approach as a teaching and learning process was problematic in undergraduate nursing curricula.

A descriptive qualitative survey was conducted with clinical agencies and former students to ascertain the effectiveness of curriculum design within a problem based nursing program (Alavi, Cooke & Crowe 1997). A questionnaire was sent to nursing directors of 37 hospitals in Queensland, Australia and 29 respondents expressed their perception of transitional difficulties of new nursing graduates. The overall responses indicated that graduates were partially successful in their ability to manage patients' workload including time management and prioritisation (19/29) (65.5%), and confidence/ability to consolidate skills (15/29) (51.7%). A second part of the study, 26 nursing graduates from a university nursing degree program were randomly selected for tape-recorded interviews to capture their experiences of transition. The majority of graduates reported that the clinical reasoning process used in their course was of great value in the clinical setting. The study revealed that PBL curriculum

was successful in assisting graduates to become registered nurses as identified by clinical agencies and graduates.

A project was conducted to implement and evaluate PBL in an undergraduate-nursing curriculum drawing several studies. (Alexander, McDaniel, Baldwin & Money 2002). The aim of the PBL curriculum was to improve learning outcomes in several key areas such as critical thinking, self-directed learning, communication, interdisciplinary collaboration, teamwork, and life long learning skills. The National Council Licensure Examination (NCLEX-RN) results revealed 100% pass rate in three successive examinations. The report suggested that the introduction of PBL curriculum was highly successful based on several studies conducted to evaluate the curriculum.

The reported studies on PBL nursing curricula revealed a number of variants of PBL in terms of definition, implementation strategies and evaluation methods within nursing curricula. It is therefore difficult to draw a conclusion regarding the effectiveness of the PBL approach in nursing curricula.

3.1.2.9.3.3 Integrated critical thinking model

The integration of critical thinking (CT) skills into nursing curricula is a widely discussed concept in nursing education. Three studies and one report were included in the review focusing on the effectiveness of critical thinking in nursing curricula.

A quasi-experimental study was used to evaluate the attainment of CT skills bynursing students before and after curriculum revision in a baccalaureate nursing program (Beckie, Lowry & Barnett 2001). CT was the major concept of the revised curriculum, and was integrated into the program goals, objectives and the didactic and clinical courses of the program. However the authors did not provide any details regarding the former curriculum. The California Critical Thinking Skills Test (CCTST) was used to measure the CT skills of students at program entry, midpoint, and at exit. The sample consisted of three cohorts of students (former curriculum group: cohort 1 (n=55), first two groups of revised curriculum: cohort 2 (n=55) and cohort 3 (n=73)). The results demonstrated that a revised curriculum group (cohort 2) showed statistically significant higher scores compared with former curriculum group (cohort 1) on the total CCTST score (F=18.58, p<0.001) after removing the effect of repeated testing. However cohort 3 failed to demonstrate improved CT

skills scores compared with cohort 1. The authors provided possible explanations for the lack of improvement in CT skills of cohort 3, mainly because of lack of interest in completing the CT skills assessment. This study, however, revealed that the revised curriculum that integrated CT concepts tends to improve CT skills of nursing students, compared to the former curriculum.

As part of a large study, evaluation methodology was used to determine the improvement of CT skills of students in an undergraduate nursing program (Schultz 2001). CT was one of major concepts of the nursing program. The California Critical Thinking Skills Test (CCTST), and California Critical Thinking Disposition Inventory (CCTDI) were used to measure the CT skills of sophomore students (students studying in the second year of a course at a USA college or high school) (n=25), junior students (n=16), senior students (n=24) and the post-tests were conducted on sophomore students (n=15), junior students (n=15), and senior students (n=23) after a seven month period. The paired t-test, Pearson correlation coefficient and ANOVAs with Scheffe post hoc analysis were used to analyse the data. The Scheffe post hoc analysis revealed that the sophomore CCTST total scores (M=17.14, SD=3.40) were higher (p=0.006) than the senior CCTST total scores (M=14.09, SD=3.04). The junior CCTST total scores (M=16.07, SD=2.63) were not significantly different from the sophomore (p=0.457) or senior (p=0.157) groups. The study revealed that the nursing curriculum did not significantly improve the CT skills of junior and senior students however it improved CT skills of sophomore students

The purpose of a descriptive study was to evaluate the development of CT skills in students in a Bachelor of Nursing program (Spelic, Parsons, Hercinger, Andrews, Parks & Norris 2001). The development of CT skills was the major strand of this nursing curriculum. The California Critical Thinking Skills Test (CCTST) was utilised to measure CT skills of undergraduate nursing students from three undergraduate pathways leading to a bachelor degree in nursing (n=136). Paired t – test was used to analyse pre-test, post-test differences of all nursing students. All entry and exit comparisons of CCTST sub-scale scores and total score were statistically significant for all three pathways of undergraduate nursing program (p<0.01), with one exception. The authors suggested that teaching-learning strategies that emphasise inquiry, testing of inferences, diagnostic reasoning, inductive and

deductive aspects of clinical problem-solving, and self-reflection on reasoning constitute activities that teach and foster CT in nursing students across the curriculum.

A report published by the American Association of Colleges of Nursing (AACN) was designed to provide direction for the preparation of professional nurses for practice into the 21st century (AACN 1998). The report was developed by a task force to begin to define the role and critical competencies for professional nursing practice for the future health care system. Following the initial discussions with experts of the field, a series of regional meetings were held to seek consensus about the statements of role, essential competencies, core knowledge and professional values related to nursing education. Nurse educators, clinicians, administrators, and researchers representing a range of nursing programs, specialties, and organisations discussed, debated, and made recommendations regarding the draft document. The final report was intended to describe what could be expected of new nurses at the time of graduation from baccalaureate-degree nursing programs. The report revealed that several components were essentials for all baccalaureate nursing programs. These were liberal education, professional values, core competencies, core knowledge, and role development. The report outlined that CT is a major core competency, the basis for clinical judgement and ethical decision-making required for the practice of professional nursing. The report also suggested that the liberal education should be integrated into nursing curricula to promote CT skills of nursing students.

It is difficult to draw a meaningful conclusion regarding the effectiveness of integrated CT curriculum model in undergraduate nursing education because of limited number of high quality comparative studies, and the results variability of reported studies.

3.1.2.9.4 Perceptions of nursing curriculum models

Two studies focusing on major concepts and nursing curricula were included in the present study. A survey research method was used to investigate changes in professional attitudes in Registered Nurse/Bachelor of Science (Nursing) programs and the relationships between selected affective factors and professional attitudes (Periard, Bell, Knecht & Woodman 1991). The multistage cluster sample included 296 students from National League for Nursing accredited programs in four Midwest

states in the USA. The Professional Value Scale, and four other scales (trustworthiness, intolerance of ambiguity, Tennessee Self Concept Scale, and a professional goal scale) were used as instruments, and the reliability for all instruments measured by Cronbach's Alpha was 0.7621 or greater. The study revealed a statistically significant increase in professional attitudes between the beginning, middle, and completion of the programs. The analysis of variance found that the growth in professional attitudes was gradual (F=5.01, df=295, p<0.01). A positive correlation between professional attitudes and trustworthiness (p<0.0001), professional attitudes and professional goals (p<0.0001), professional attitudes and social self (a part of the Self Concept Scale) (p<0.01) and a negative correlation of professional attitudes and intolerance of ambiguity (p<0.0001) were found. The authors suggested that affective factors were significantly related to professional attitudes, and these should be integrated into curriculum design, teaching strategies, and in counselling throughout the program. The study also recommended that these factors must be integrated into program evaluation as a measurement of quality and effectiveness.

A descriptive correlational study assessed a new curriculum of an undergraduate nursing program comparing to an ideal curriculum, on 21 bipolar criteria reflecting the developing changes in health care practices and higher educational processes in western society (Ben-Zur *et al.* 1999). The assessment method was based on World Health Organisation criteria and the SPICES model of curriculum evaluation (Student-centred, Problem-based, Integrated, Community-based, Elective, and Systematic) (Ben-Zur *et al.* 1999). The study examined actual and ideal curriculum assessments of first and second year undergraduates (n=90) who enrolled in a new nursing curriculum that consisted the concept of management of complexity in health related situations both in the community and in hospitals. The results revealed that the actual curriculum of the innovative nursing program was similar to an ideal curriculum according to students' rating in terms of the expected changes in the heath care system (p<0.0001). The second study was conducted to evaluate past traditional nursing curricula using a similar instrument. The sample was of registered nurses (n=105) who were trained on traditional nursing curricula. The results showed that registered nurses perceived past curricula as lower than the ideal on both health care and process of learning. Based on overall findings, the authors suggested that the evaluated new curriculum was indeed more compatible with future trends in the

health care system than traditional nursing curricula. The findings suggest that nursing curricula should address future trends in health care and its management.

3.1.2.10   Discussion

The major challenge currently facing undergraduate nursing education is to prepare nurses for practice in a dynamic health care environment in which technologies are rapidly changing and knowledge is dramatically expanding. Developing appropriate nursing curricula has therefore been identified as a major solution to this internationally recognised issue. A vast amount of literature has been published on nursing curricula, however to date there has been few systematic reviews undertaken on undergraduate nursing curricula. The purpose of this review was to appraise and synthesise the best available evidence on the effectiveness and appropriateness of undergraduate nursing curricula models.

This review used the SUMARI software package of the JBI, which enabled the inclusion of textual data to extend the review beyond empirical data, and thus provide a comprehensive picture of the outcomes included in the review. The results of the review identified a number of empirical studies and textual reports specific to the review question. A total of 13 papers from 16 papers included were empirical studies, however, meta-analysis was not possible due to the different outcomes, control groups and interventions of the selected studies. Critical appraisal of the remaining three papers was conducted utilising JBI-NOTARI. The evidence was presented in a narrative summary.

The reviews of nursing curricula included two systematic reviews and one textual report (Fitzgerald *et al.* 2001; McKinley *et al.* 2001; Clare *et al.* 2002) revealed the lack of empirical evidence for the effectiveness of current nursing curriculum models. However, the two systematic reviews on nursing curricula did not compare the effectiveness of nursing curricula models. In this review, four undergraduate nursing curriculum models were identified, and compared the effectiveness of integrated curriculum model and subject-centred curriculum model. The remaining two models (problem based learning model and integrated critical thinking model) could not be compared to each other due to a lack of evidence. Despite the wide applicability of the above four curriculum models of undergraduate nursing education, there is a lack of systematic, high quality research on the effectiveness of

these models. Except for the two systematic reviews, all other evidence used in this review was level III or level IV according to the JBI's classification (JBI 2006).

The papers included in the review examining the effectiveness of an integrated curriculum model and a subject-centred curriculum model were level III evidence, a lower level of evidence. The most common methodological problem of these studies was the evaluation of single or isolated outcome or concept of the curricula [e.g. physical assessment (Patenaude-Lockett 1994), ageing content (Jansen & Morse 2004), anxiety and diagnostic reasoning ability (Briody 1996)]. Two descriptive studies investigating the effectiveness of integrated models (Fulton 1992; Leen 1990) lacked comparison groups against which to evaluated effectiveness. Based on the findings, no strong conclusions can be drawn on the effectiveness of integrated and subject-centred models in terms of effectiveness. However, this lower level evidence tends to suggest that some components/concepts of nursing curricula such as ageing concepts, liberal education can be effectively integrated into the curricula, and most technical components such as physical assessment can be best presented in the subject-centred model (as separated courses).

The papers evaluating the effectiveness of the problem-based learning (PBL) curriculum model included part of a systematic review (Fitzgerald *et al.* 2001) (Level I), a descriptive study (Alavi *et al.* 1997) (Level III), and a project report (Alexander *et al.* 2002) (Level IV). The systematic review on PBL suggested that the use of the PBL approach in undergraduate nursing curricula was problematic (Fitzgerald *et al.* 2001), however the reasons for this assessment were not discussed. Another two papers revealed that the PBL curricula were successful according to the evaluation methods (Alavi *et al.* 1997; Alexander *et al.* 2002), however a number of differences can be identified in terms of definition, implementation, and evaluation of PBL within nursing curricula. Although most studies on PBL are favourable a lack of clear definition of PBL seems to be the major problem (Clare *et al.* 2002; Newman 2004; Gabb & Keating 2005). A recent meta-analytic review on the effectiveness of PBL in Medicine, Dentistry and Veterinary Medicine found a lack of evidence about the effectiveness of different kinds of PBL in different contexts with different students' groups (Newman 2004a). Based on the results, it is difficult to draw a meaningful conclusion regarding the effectiveness of the PBL curriculum model in

undergraduate nursing education. However, PBL appears to be one of the major pedagogical approach on offer in higher education (Newman 2004).

The studies investigating the effectiveness of integrated CT curriculum model included three descriptive studies (Beckie *et al.* 2001; Schultz 2001; Spelic *et al.* 2001) (Level III), and a textual report (AACN 1998) (Level IV). In the three descriptive studies, CT was integrated as the major concept of the curricula, and CCTST was utilised to measure CT skills of undergraduate nursing students (Beckie *et al.* 2001; Schultz 2001; Spelic *et al.* 2001). The common problem with this method in terms of meta-analysis was the failure of these studies to adequately compare the CT skills against another curricula model, and there were a number of variations in definition and implementation of CT strategies within nursing curricula. The three studies suggested that the integrated CT model was successful. However, all the authors commented on the limitations of the CT measurement test (CCTST), and suggested the need for discipline-specific CT instruments to better capture true CT skills of nursing students (Beckie *et al.* 2001; Schultz 2001; Spelic *et al.* 2001). The report of the American Association of College of Nursing recommended CT as a major core competency that graduate nurses require (AACN 1998). Based on this lower level evidence, no meaningful conclusion can be drawn on the effectiveness of the integrated CT model of curriculum in nursing education. Despite the low level evidence on the effectiveness of nursing curricula to develop CT, many international and national nursing organisations recommended CT as a major competency or standard of professional nursing (National League for Nursing Accrediting Commission 1997; AACN 1998; Australian Nursing Council 2000).

The papers evaluating perception of future nursing curriculum models included two descriptive studies (Level III) (Periard *et al.* 1991; Ben-Zur *et al.* 1999). The two studies identified several concepts [professional attitudes, trustworthiness, professional goals, social self (Periard *et al.* 1991), and future trends in health care (Ben-Zur *et al.* 1999)] that are critical for undergraduate nursing education. However, these studies failed to compare different models of curriculum model for future nursing education and only addressed concepts. These concepts indicated a need more flexible to capture the changing health, social and demographic environment of the society (Clare *et al.* 2002).

Globally, health care systems are challenged by the increasing demands for cost effectiveness. In the context of improving the quality of health care with limited resources, health care professionals are now evaluating the effectiveness of health interventions. Although many professional nursing associations indicated the need for research in nursing education to determine the effectiveness of innovative programs and teaching strategies (AACN 1998a; National League for Nursing 2002) nursing education has largely ignored this trend towards evidence based practice. Nurse researchers should focus on a systematic and rigorous program of research to examine the effectiveness of curricula strategies, and more specifically the effect of curricula on patient care. However, several challenges can be identified, mainly a lack of development of research methods (e.g. a lack of randomised controlled trials for effectiveness of interventions), inappropriate use of research methods (e.g. small samples, lack of control or comparison groups) a lack of validated discipline specified instruments (e.g. CT skills measuring instruments), inconsistency of defined educational strategies (e.g. PBL), and inadequate funding for educational research. Systematic reviews are useful in summarising and synthesising information to identify effects on curricula interventions (teaching and learning strategies, course content, learner satisfaction etc), however the use of meta-analysis or meta-synthesis is almost impossible because of inconsistency of strategies, interventions, definitions, and measurements of nursing educational research. As a solution, it is recommended that collaborative research on education and practice should be conducted to determine the effectiveness, appropriateness, and feasibility of educational interventions. Educational interventions should be defined initially, and evaluated using properly designed randomised controlled trails, and utilising other appropriate research designs (e.g. multiple sites, longitudinal studies). However experimental studies can be challenged by ethical and practical issues due to the complexity of human behaviour and the difficulty in measuring the effectiveness of curricula. Qualitative research, which can be useful to better capture phenomena and experiences, can provide one avenue on which to base practice.

3.1.2.11   Conclusion

The evidence regarding the effectiveness and appropriateness of undergraduate nursing curricula is notably weak due to a lack of high quality research and a lack of important outcomes measures (such as patient care outcomes) in the available research. Most included studies in this systematic review were lower level evidence

(Level III & IV) except two systematic reviews (Level I). In this review, expected outcome measures were divided in to three broad categories: nursing staff (including students) outcomes, consumer outcomes, and system outcomes. However no study was found in relation to consumer and system outcomes. These are very important outcomes of measuring the effectiveness of nursing education, because quality patient care is the ultimate goal of nursing education (Clare *et al.* 2002). Based on the above two methodological reasons and results of this comprehensive systematic review, no strong conclusion can be made regarding the effectiveness and appropriateness of undergraduate nursing curricula models. However, there is some low-level evidence to suggest that some concepts in nursing curricula (e.g. ageing concepts, liberal education) can be effectively integrated into the curricula, and most technical components like physical assessment can be best presented in the subject-centred model. The evidence for using problem-based learning in undergraduate nursing education is inconclusive, and needs further investigation. There is clearly a need for a systematic and rigorous program of research to examine the effectiveness of different models of nursing curricula to produce the best nursing curriculum model for the future practice.

3.1.2.12   Implication for practice

From the overall results of the review a number of recommendations can be made for practice.

- The combination of integrated and subject-centred models may be effective for undergraduate nursing curricula. Some components/concepts of nursing curricula such as ageing concepts, liberal education can be effectively integrated into the curricula, and most technical components like physical assessment can be best presented in the subject-centred model (Level III)

- No strong conclusion can be made on the effectiveness of integrated CT model in undergraduate nursing curricula; however CT skills are a major competency or standard of professional nursing. (Level III & IV)

- Future undergraduate nursing curricula should address future trends in the health care environment. (Level III)

3.1.2.13   Implication for research

Further research is required to examine the relationships related graduates and patient care outcomes and effectiveness of undergraduate nursing curricula models. These studies should not only be comparative empirical studies, but also interpretive studies that can be effectively capture the deeper understanding of patient care experience. A

series of systematic and rigorous programs of research is required to examine the effectiveness of different models of nursing curricula.

3.2 Systematic review 2

The feasibility and appropriateness of introducing nursing curricula from developed countries into developing countries: A comprehensive systematic review

3.2.1 Executive summary

3.2.1.1 Objectives

The objective of this review was to appraise and synthesise the best available evidence on the feasibility and appropriateness of introducing nursing curricula from developed countries into developing countries.

3.2.1.2 Inclusion criteria

This review considered quantitative and qualitative research papers and publications that addressed the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries. Papers of the highest level of evidence rating were given priority. Participants of interest were all levels of nursing staff, nursing students, health care consumers and health care administrators. Outcomes of interest that are relevant to the evaluation of undergraduate nursing curricula were considered in the review including cost effectiveness, cultural relevancy, adaptability, consumer satisfaction and student satisfaction.

3.2.1.3 Search strategy

The search strategy sought to find both published and unpublished studies and papers, limited to the English language. An initial limited search of MEDLINE and CINAHL was undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the article. A second extensive search was then undertaken using all identified key words and index terms. Finally, the reference list of all identified reports and articles was searched, the contents pages of a few relevant journals were hand searched and experts in the field were contacted to find any relevant studies missed from the first two searches.

3.2.1.4 Methodological quality

Each paper was assessed by two independent reviewers for methodological quality before inclusion in the review using an appropriate critical appraisal instrument from the SUMARI package.

3.2.1.5 Results

A total of four papers, including one descriptive study and three textual papers were included in the review. Because of the diverse nature of these papers meta-synthesis of the results was not possible. For this reason, this section of the review is presented in narrative form. In this review, a descriptive study and a textual opinion paper examined the cultural relevancy of borrowed curriculum models, and the global influence of American nursing. Another two reports evaluated the adaptability of another country's curriculum model to another country.

3.2.1.6 Conclusion

The evidence regarding the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries is weak due to the paucity of high quality studies. However, some lower level evidence suggesting that direct transfer of the curriculum model from one country to another is not appropriate without first assessing the cultural context of both countries. Secondly, the approach of considering international, regional and local experiences of developing nursing curricula models is more feasible and presumably a more effective strategy for adapting a country's curriculum into a culturally or economically different country.

3.2.1.7 Keywords

Developed countries, Developing countries, Nursing education, Undergraduate curricula, Systematic review

3.2.2 The comprehensive systematic review

3.2.2.1 Introduction

The purpose of this systematic review was to identify evidence of the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries. Because of the complexity of the topic, the review located all forms of high quality research and expert opinions. The Joanna Briggs Institute (JBI) System for the Unified Management, Assessment and Review of Information (SUMARI), was used as a guide for the review.

3.2.2.2 Background

The term 'developing country' refers to countries with low levels of economic development which are usually associated with low levels of social development, for example in terms of education, health care and life expectancy. According to World Bank reports most developing countries face significant challenges in improving the health of their people. Up to two million childhood deaths occur annually due to vaccine-preventable diseases, 200 million children under the age of five still suffer from malnutrition, 120 million couples still lack options in family planning, 7.5 million children die every year during the perinatal period; and 30 percent of the world is still without access to safe water and sanitation systems (World Bank 2005).

During the last decade political uncertainty, military conflicts, and natural disasters have affected the national economies of most developing countries. Some major societal and health problems are common to most of these countries such as poverty; the high incidence of accidents; tobacco and drug addiction; environmental health hazards; the spread of HIV/AIDS; and the high incidence of low birth weight infants and communicable diseases (WHO 2003). Primary health care has been adopted by most developing countries as the key approach to the improvement of health (WHO 1997; WHO-ROSEA 2003). However, these countries face significant financial, geographical and cultural challenges in achieving quality health services that are equitable and accessible (WHO 2003).

It has been recognised that nurses are a crucial part of the healthcare workforce in terms of caring for patients, preventing illnesses and promoting the health status of the nation. However, in most developing countries, the profession has not asserted its

professional status within the health sector. For example, there has been minimal effort to improve the standards of nurses' education in some developing countries (WHO-ROSEA 2002). Additionally, there has been increasing concern in many countries over the widening gap between nursing education and nursing services mainly due to the gap between curricula and clinical experience (WHO-ROSEA 2002; WHO 2003). A major challenge to the nursing profession today is to find ways of merging theory and practice in the delivery of nursing education and patient care. Most developed countries have re-structured their nursing curricula to narrow the gap and promote collaboration between nursing services and nursing education (AACN 1998; UKCC 1999). It has been shown that collaboration between nursing services and education providers facilitates optimal use of resources and expertise of the two sectors, which improves the quality of nursing care and education (WHO-ROSEA 2002). In contrast, few attempts in this regard have been made in developing countries because of financial constraints and inadequate infrastructure for developing appropriate curricula (WHO-ROSEA 2002).

Generally, a curriculum is a written document that includes the content, scope and arrangement of an educational program. It specifies the learning activities designed to achieve specific educational goals. Historically, most developing countries borrowed and adapted other countries' curricula (mostly from developed countries) for restructuring nursing curricula in their countries, mainly through internationally funded or collaborative education projects. Some studies have investigated the relevance of these models or frameworks to different cultural contexts and to developing countries. However, there has been no attempt to systematically review the evidence on the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries. Such a systematic review will assist nurse educators and administrators to develop nursing curricula appropriate to developing countries.

3.2.2.3 Objective

The objective of this review was to appraise and synthesise the best available evidence on the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries.

The specific review question addressed is:

How feasible and appropriate is it in terms of cost effectiveness, relevancy and satisfaction to introduce developed countries' nursing curricula into developing countries?

The findings of this review will be used to inform professional nursing education.

3.2.2.4 Review method

3.2.2.4.1 Inclusion criteria

Specific criteria were used to determine which studies and publications would be included in the review.

3.2.2.4.1.1 Types of participants

This review considered studies and publications that included all levels of nursing staff, nursing students, health care consumers and health care administrators.

3.2.2.4.1.2 Types of intervention(s)/phenomena of interest

All studies and publications that evaluated the feasibility and appropriateness of introducing a developed country' nursing curriculum into a developing country were considered for inclusion in the review.

3.2.2.4.1.3 Types of outcomes

The outcome measures were all factors which considered the feasibility and appropriateness of introducing the curriculum from a developed country into a developing country: cost effectiveness, cultural relevancy, adaptability, consumer satisfaction, student satisfaction, and other outcomes depending on the nature of the study.

3.2.2.4.1.4 Types of studies/publications

This review considered any studies and publications that drew on the feasibility and appropriateness of introducing developed countries' nursing curricula into developing countries. In the absence of research studies addressing the selected outcomes, other text such as opinion papers and narrative reports were considered.

3.2.2.5 Search strategy

The search strategy aimed to find both published and unpublished studies and text. The search was limited to English language reports. A three-step search strategy was used in each component of this review. An initial limited search of MEDLINE and CINAHL was undertaken, followed by an analysis of the text contained in the title

and abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken. Thirdly, the reference list of all identified reports and articles were searched for additional studies. Hand searching of relevant journals such as the Journal of Nursing Education, Nurse Educator and Nurse Education Today was undertaken to reveal any additional literature.

The following bibliographic databases were searched:

MEDLINE (1966 to September 2005)

CINAHL (1982 to September 2005)

ERIC (to September 2005)

Cochrane (to September 2005)

Expanded Academic Index (to September 2005)

Current Contents (to September 2005)

Embase (to September 2005)

The search for unpublished studies included:

Dissertation Abstract International (to September 2005)

Index to Thesis (to September 2005)

WWW sites of relevant professional associations (e.g. International

Council of Nurses, World Health Organisation) (to September 2005)

Google and Yahoo were used to search the general internet.

An expert was consulted regarding any unpublished or ongoing studies:

Dr Yu (Philip) Xu, Associate Professor, School of Nursing, University of Nevada, Las Vegas, USA

All papers identified during the database search were assessed for relevance to the review based on the information provided in the title and abstract. The full report of the paper was retrieved if the paper appeared to meet the inclusion criteria and it was again assessed for applicability to the inclusion criteria in order to determine the relevance to the review objective.

3.2.2.6 Assessment of methodological quality

Each paper was assessed by two independent reviewers for methodological quality before inclusion in the review using standardised critical appraisal instruments from

the SUMARI (Appendix 1). Any disagreements that arose between the reviewers were resolved through discussion and, if necessary, with the involvement of a third reviewer. This review used the JBI levels of evidence to rank the methodological quality of included studies (JBI 2006).

3.2.2.7 Data collection

Following assessment of methodological quality, papers were grouped according to study design. It was planned to extract the quantitative data from papers included in the review using the standardised data extraction tool from the JBI Meta Analysis of Statistics: Assessment and Review Instrument (JBI-MAStARI). The qualitative data were extracted using the JBI Qualitative Assessment and Review Instrument (JBI-QARI). The opinion and other text data were collected utilising the JBI Narrative, Opinion and Text Assessment and Review Instrument (JBI-NOTARI) (Appendix 2).

3.2.2.8 Data analysis

3.2.2.8.1 Quantitative data analysis

It was planned, where possible, for quantitative research study results to be pooled for statistical meta-analysis using Review Manager Software from the Cochrane Collaboration (Revman V4.04). All results were to be double entered. Odds ratio (for categorical data) and weighted mean differences (for continuous data) and their 95% confidence intervals were to be calculated for each analysis. Where possible, heterogeneity between comparable studies was to be assessed using the standard Chi-square analysis.

3.2.2.8.2 Qualitative and textual data synthesis

Data synthesis of qualitative and textual data was performed using the JBI-QARI and JBI-NOTARI software packages. The process of meta-synthesis embodied in these programs involves the aggregation or synthesis of findings/conclusions made in relation to the intervention, activity or phenomenon that is the subject of the review. The aim of the process is to generate a set of statements that represent aggregation through assembling the findings or conclusions rated according to their credibility (Appendix 3), and categorising these findings/conclusions on the basis of similarity in meaning. These categories are then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesised findings that are used as a basis for evidence-based practice.

3.2.2.9 **Results**

3.2.2.9.1 Description of studies

A total of 323 papers were identified as potentially relevant to the review question in the first and second step of the literature search. In the reference list search and hand search, an additional 24 papers were identified. Based on an examination of the title and abstract of these papers, 38 papers that were relevant to the review topic were retrieved for evaluation with respect to the inclusion criteria and methodological quality. A total of 34 of these 38 papers were excluded because of incongruity with the review objectives and/or outcomes (Appendix 5). Four papers met the inclusion criteria, comprising one descriptive study and two program evaluation reports and one opinion paper.

The included papers provide a variety of curricula evaluation instruments and different outcome measures. Meta-synthesis was not possible due to the heterogeneous nature of the selected studies. This evidence is therefore presented in a narrative summary.

The selected papers for this review examined the cultural relevancy and adaptability of borrowed curriculum models. The American curriculum model (*The Essentials*) and its global influence, especially in China and Japan, were explored in a descriptive study and an opinion paper. Other two opinion papers evaluated the adaptability of another country's curriculum model to a developing country.

3.2.2.9.2 Cultural relevancy of curriculum models

A descriptive survey examined the perceived relevance of *The Essentials of Baccalaureate Education for Professional Nursing* to curriculum development for baccalaureate nursing education in China (Xu, Davis, Clements & Xu 2002). The *Essentials*, which is published by the American Association of Colleges of Nursing (AACN), serves as a blueprint for curriculum development in baccalaureate nursing education programs in the USA (AACN 1998). A questionnaire was developed to measure Chinese nurse educators' perceptions regarding the relevance of 21 key concepts extracted from *The Essentials* in both the present curriculum and an ideal curriculum from three perspectives: importance, cultural relevance and extent of exposure. The survey was mailed to all known baccalaureate nursing programs in China ($n=22$), and respondent rate was 50%. Descriptive statistical analyses were

performed on the demographic and quantitative data, and content analysis was used to analyse the qualitative data.

The results revealed that the concepts that were perceived as most important, most culturally relevant, and most exposed included "technical skills", "integrity", "communication", "illness and disease management" and "human dignity." The authors suggested that these concepts have the highest transferability to the Chinese baccalaureate nursing education (Xu *et al.* 2002). In contrast, "autonomy", "global health care", "health care systems and policy", "human diversity" and "designer/manager/coordinator of care" were ranked the lowest consistently in the present curriculum, suggesting the greatest deficits in these areas (Xu *et al.* 2002). "Autonomy" "designer/manager/coordinator of care", "critical thinking" "global health care" "health care systems and policy" and "human diversity" consistently presented the largest discrepancies between the present curriculum and the ideal curriculum across the three measured dimensions (Xu *et al.* 2002). The findings revealed that some of the concepts were not readily transferable due to diversity in concepts in the baccalaureate nursing education curricula in China and in the USA. The authors suggested that despite some common perspectives and shared concepts underpinning both systems, the diversity perspectives alerted international nurse educators to the potential limitations of transplanting *The Essentials* without first assessing its cultural relevancy. The study concluded that cultural value clarification and adaptation to home cultures are essential if another country's curriculum model is to be applied to a new cultural context.

An opinion paper explored the global influence of American (US) nursing mainly by considering some cultural and ethical issues (Davis 1999). The author provided three major factors for the global influence of US nursing. First, the highly developed US nursing profession publishes and distributes a vast array of nursing literature that directly impacts on international nursing. Secondly, many of the world's nursing leaders have received some of their education in the USA. Finally, many US nursing academics and researchers have worked overseas as nursing consultants. As the author states, these factors have all directly influenced international nursing. Japan was one country where both established nursing schools and degree programs were heavily influenced by US nursing after the Second World War (Davis 1999). The underlying assumptions and beliefs of US nursing were accepted and used without

examining potential conflicts between traditional Japanese values and US values (Davis 1999). The author revealed that directly imported concepts of nursing (e.g. self-reliance, individualism, informed consent) were inconsistent with Japanese cultural and ethical norms. As a result, confusion can occur in the value orientation of Japanese nurses that directly impacts on patient care services. The author therefore suggested that it is extremely unwise to take nursing content in its entirety from one culture and simply apply it in a very different culture.

In summary, the lower level evidence (Level III & IV) of included papers examining the cultural relevancy of borrowed curriculum models suggests that the direct transplantation of a curriculum model from one culture to another is not appropriate without first assessing the cultural relevancy of the curricula.

3.2.2.9.3 Adaptability of curriculum models

An program evaluation paper of the first baccalaureate nursing program in Sri Lanka described the adaptability of the Canadian baccalaureate nursing program, and evaluated the program's success after five years of program implementation (Cameron 2001). This program was established in 1994 at the Open University of Sri Lanka (OUSL) with joint collaboration with Athabasca University, Canada, through a 5-year programme (1992-1997) funded by the Canadian International Development Agency (CIDA) (Cameron 2001). The author, a nursing education consultant of the program, described the process of adapting the Canadian baccalaureate nursing curriculum to Sri Lanka. The Canadian curriculum was modified to suit Sri Lanka; however it was apparent that the modification could only be successfully accomplished with some of the courses. During the project period, a similar nursing program from the Indira Ghandi National Open University, India, was examined for its adaptability to the Sri Lankan setting. However, despite regional similarities, some courses were not directly applicable to the Sri Lankan situation (Cameron 2001). Finally, the curriculum was developed by Sri Lankan and Canadian academics (The Open University of Sri Lanka faculty) incorporating the better adaptability of the Canadian curriculum with regional (Indian) and local experience. The study revealed that the direct application of another country's curriculum was not successful because of a different learning environment; therefore a combination of international, regional and local experience could be a more effective strategy in terms of adapting curricula.

As part of the evaluation, a survey was conducted to examine the progress of the program in its fifth year (Cameron 2001). A questionnaire was used to collect data from students, graduates, faculty of the program, members of the advisory committee and employers, and the response rate was 46%. The survey found that graduates of the program, and employment agencies reported improved critical thinking, decision-making and leadership skills in patient care, administration and teaching sectors compared to diploma prepared nurses. The findings revealed that the expected outcomes of the program were successfully realised in terms of effectiveness and adaptability.

A report from two nursing education experts described the adaptation of the Bahrain Model of nursing curriculum for developing a nursing curriculum in the United Arab Emirates (UAE) (Kronfol & Athique 1986). Following a request from the Ministry of Health of the UAE, the American University of Beirut established the school of nursing in Abu Dhabi, and adapted the Bahrain Model of nursing curriculum to the UAE (Kronfol & Athique 1986). The American University of Beirut had previously established the College of Health Sciences in Bahrain and designed a curriculum for nursing education in that country (Kronfol & Athique 1986). The authors suggested that the Bahrain Model of nursing curriculum provided a framework for nursing education in UAE, it was practical and relevant to the UAE, and was sufficiently flexible to incorporate future changes of the health care system. Although the American University of Beirut provides a rigorous curriculum in the American liberal arts tradition (The American University of Beirut 2005), the curriculum developers modified a curriculum model (the Bahrain Model) from a nearby region that was already relevant to the cultural and social situation of the UAE. However, the author did not provide details of exactly how the model was modified.

In summary, the lower level evidence (Level IV) of reported studies evaluating the adaptability of curriculum models tends to suggest that drawing on a mix of international, regional and local experience is a more effective strategy for adapting another country's curriculum.

3.2.2.10   Discussion

Historically, most countries have used other countries' curricula as a guide or the basis for developing their own nursing curriculum. However, little emphasis has been placed on the appropriateness of this strategy. A vast amount of literature has been

published on nursing curricula, however to date there has been no systematic review undertaken examining the feasibility and appropriateness of introducing developed countries' nursing curricula in developing countries. The purpose of this review was to appraise and synthesise the best available evidence on the feasibility and appropriateness of introducing developed countries nursing curricula to developing countries. The SUMARI package of JBI was utilised as a methodological guide for the review, allowing the review to extend beyond empirical data and consider textual data, providing a comprehensive picture of the included outcomes of the review.

The papers included in the review examining the cultural relevancy of curriculum models were level III (Xu *et al.* 2002), and level IV (Davis 1999) evidence using the JBI levels of evidence (JBI 2006). This lower level evidence tends to suggest that the direct application of a curriculum model is not appropriate in a different cultural context without first assessing the cultural relevancy of that model. Some of the concepts in the developed countries' curricula could not readily be transferred to another cultural context due to the differences in cultural values. For example, in some developed western countries, autonomy is a core value that is based on the belief in individualism. In contrast, collectivism is the preferred value in some developing eastern countries (Xu *et al.* 2002). Several studies examined the conflicts between western and eastern cultural values in nursing (Minami 1985; Doutrich 2001; Hisama 2001; Xu *et al.* 2002; Pang *et al.* 2003). The suggestions of these studies are consistent with the findings of this review; therefore it can be suggested that the direct transfer of curriculum models or concepts from another country to a culturally different country is not appropriate without first assessing the cultural relevancy of such a transfer.

However, most developing countries are still borrowing concepts and curricula directly from developed countries, mainly due to the global influence of developed countries' nursing. Most international organisations (e.g. World Health Organisation, Canadian International Development Agency, Japan International Cooperation Agency) provide educational assistance for developing countries to improve nursing education in terms of expert assistance, educational materials including literature, and education management models. Educational assistance is often provided by education consultants from developed countries aiming to assist curriculum development, and use their own country's model without assessing the cultural or

economic relevancy to the local context. Even though some faculties from developing countries develop their own curricula, they have to use guidance, theory and concepts from literature that mostly come from developed countries. This is mainly due to the inadequacy of resources such as experts, research based evidence and infrastructure facilities in developing countries. This situation may create not only value conflicts but also economically inappropriate curriculum models for developing countries in terms of teaching and learning methods in the curriculum and expected outcomes of the program. The effect of borrowing curricula models can be minimised by systematically assessing the cultural and economic relevancy.

The papers evaluating the adaptability of curriculum models included two textual papers (Kronfol & Athique 1986; Cameron 2001) that were categorised as level IV evidence. The lowest level evidence tends to suggest that using a combination of international, regional and local experience may be a more effective strategy for adapting another country's curriculum to a culturally and socially different country; however heterogeneity of culture and economy within the region must also be considered. The Sri Lankan study revealed that the use of the Indian nursing curriculum was not successful in Sri Lanka even though both countries are situated in the same region (Cameron 2001). The rich diversity of the two societies is the most likely explanation for why the curriculum was not successfully transplanted. However, the UAE study found that the UAE implemented the Bahrain curriculum effectively in the light of homogeneous cultures and regional similarities (Kronfol & Athique 1986). Two other papers excluded from this review on the basis of review and meeting the objectives examined the development of a new curriculum in Kuwait, and suggested that the social, health, and nursing context in a country should be considered carefully in order to develop a new curriculum that best fits the needs of the country (Meleis 1979, 1980). It can be concluded that the cultural and economic relevancy of a curriculum model should be assessed even when the two countries are within the same geographic region.

3.2.2.11   Conclusion

The evidence regarding the feasibility and appropriateness of introducing developed countries' nursing curricula to developing countries is remarkably weak due to a lack of high quality research. In this review, expected outcome measures were cost effectiveness, cultural relevancy, adaptability, consumer satisfaction, and student

satisfaction. However no studies were found in relation to cost effectiveness, and consumer or student satisfaction. These are very important outcomes of measuring the feasibility and appropriateness of introducing a developed countries' nursing curricula to a developing country, because cost effectiveness and clients' (consumers and students) satisfaction should be major aims of a curriculum indeed most healthcare reforms (Ben-Zur *et al.* 1999; WHO 2002).

Despite the commonality of borrowing concepts, theory and curricula from developed countries by developing countries, there is a lack of high quality studies on the feasibility and appropriateness of this process. However, there is some lower level evidence (Level III & IV) on cultural relevancy of borrowed curriculum models, suggesting that direct application of a curriculum model from another country is not appropriate without assessing its cultural and economic relevancy. Secondly, in the case of adapting of other countries' curriculum models, the approach of considering international, regional and local experience may be a more appropriate strategy if the two countries differ culturally or socially. There is clearly a need for rigorous studies to examine the feasibility and appropriateness of introducing international nursing concepts and curricula in culturally different contexts. These studies will also contribute to our understanding of the universal applicability of current widely used curriculum models.

3.2.2.12   Implication for practice

Several recommendations can be made for practice based on the overall findings of the review.

- Direct application of a curriculum model from another country is not appropriate for a different cultural context without first assessing its cultural relevancy (Level IV)
- A combined approach encompassing international, regional and local experience of developing nursing curricula may be a more effective strategy for adapting another country's curriculum to a culturally and socially different country (Level IV)

3.2.2.13   Implication for research

This review has highlighted the paucity of high-level evidence in this field. Undertaking quantitative assessment of the effectiveness of curricula is difficult, time consuming and expensive, and is not therefore suited to traditional quantitative methods such as the randomised controlled trial. Further research into the relevance

(especially economic and cultural relevancy) of incorporating nursing curricula from developed into developing countries could utilise qualitative methods such as participatory action research, which are more suited to this type of research question.

Chapter 4 Developing a draft conceptual framework for undergraduate nursing curricula in Sri Lanka

4.1 Introduction

The aim of this chapter is to present the draft conceptual framework for undergraduate nursing curricula in Sri Lanka. This chapter is divided into two sections: the first section describes the process of developing the draft conceptual framework and the second section presents the draft conceptual framework with a description of included concepts. The draft conceptual framework is based on international, regional and Sri Lankan evidence and concepts and was informed by findings from the literature reviews and systematic reviews.

4.2 The process of developing a draft conceptual framework

The process of developing a draft conceptual framework is described in four sections: (1) the process of curriculum development; (2) approaches for developing a conceptual framework; (3) principles of developing a conceptual framework; and (4) the process of developing a draft conceptual framework for undergraduate nursing curricula in Sri Lanka.

4.2.1 The process of curriculum development

In a broad sense curriculum development, whether creating a new curriculum or revising or updating an existing one, is a process requiring time, energy and resources, and the commitment of the faculty, administrators, students, and other stakeholders (Bevis & Murray 1990; Oliva 1992; Goldenberg, Andrusyszyn & Iwasiw 2004). Curriculum development or revision is inevitable due to the effects of policy changes, consumer expectations, and technological advancements (Chaffin & Maddux 2004; Edwards 2005; Ervin, Bickes & Schim 2006). The traditional approach to curriculum design is to conceptualise the curriculum as a process that is constructed of a mission and philosophy statement, a conceptual framework,

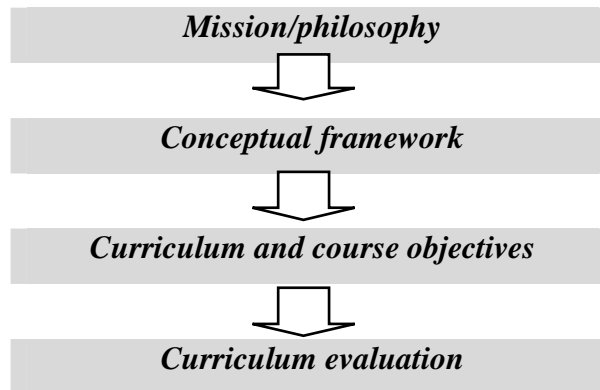curriculum and course objectives with evaluation methods (Figure 1) (Bevis 1989; Boland 1998).

Figure 1: The process of curriculum development

This approach ensures curriculum integrity, involving a systematic, logical, mechanistic sequencing of activities, each critical to the next activity (Boland 1998). However this highly structured approach does not meet every learner's pattern of learning, therefore alternative approaches suggest that learning is more chaotic in nature (Boland 1998). Boland (1998) describes a deductive, outcome driven approach to curriculum development that provides faculty with an opportunity to identify essential outcomes and competencies that graduates require in a consistently changing healthcare environment. The conceptual framework is then created around these concepts and competencies.

In determining the expected educational outcomes of a curriculum, Banta (1996, cited by Boland 1998 p.135) proposed the following questions that the faculty must ask themselves:

- *What should students know and be able to do on completion of their educational experience?*

- *What competencies in terms of knowledge, skills, and attitudes, must students possess to successfully demonstrate the desired outcomes?*

- *What learning experiences will facilitate students' attainment of these competencies?*

- *How will the attainment of these competencies and the resulting outcomes be evaluated?*

Answers to these questions provide guidance to the development of a conceptual framework for nursing curricula.

4.2.2 Approaches for developing a conceptual framework

In the absence of an adequate nursing curriculum paradigm, there is no single approach for developing a conceptual framework for curriculum. As Boland (1998, p 136) states *"curriculum frameworks are the educational road maps to teaching and learning"*. Therefore multiple approaches are available. However, there are two general approaches for determining the conceptual framework for the curriculum: (1) selecting a single nursing theorist's model and (2) an eclectic approach as a framework for the curriculum (Clifford 1989; Boland 1998). Due to the complex nature of the modern healthcare environment, it is difficult to use a single nursing model or theory as a foundation of the curricula. On the other hand, there are no comprehensive nursing models or theory that can be used to guide nursing curricula.

The eclectic nature of conceptual frameworks brings with it advantages and disadvantages. Nursing services are continually involved with different cultural, social and economic environments, and therefore the use of diverse concepts and theories in nursing curricula are required. Nursing also promotes broad views, creativity and constructive criticism (Sohn 1991; Webber 2002). An eclectic approach allows the faculty the opportunity to develop a conceptual framework that best suits their beliefs and values. However, Boland (1998) discusses some disadvantages of this approach. The use of an eclectic approach in nursing curricula creates a complex picture of expected outcomes of the program. It may also act as a barrier for developing a comprehensive nursing theory or body of knowledge in nursing (Boland 1998). However, the majority of baccalaureate nursing curricula have used an eclectic approach to organise their conceptual frameworks.

4.2.3 Principles of developing a conceptual framework

Despite a lack of specific steps, Boland (1998, p139-140) provides some guiding principles to developing a conceptual framework for a curriculum, as follows.

4.2.3.1 Identifying the concepts

The first principle is to identify the concepts that most accurately reflect the faculty's beliefs about the practice and discipline of nursing. These concepts are generally discussed in the philosophy and mission statement of the institution or department.

These statements are the starting points for choosing concepts for inclusion in the curriculum framework.

4.2.3.2 Defining the selected concepts

If faculty select a more open or eclectic approach, the definition of these concepts should reflect back to the philosophy, mission statements or discipline in which concepts were originally conceived.

4.2.3.3 Explain the linkages between and among the concepts

Explaining linkages between and among concepts of a curriculum framework is critical because the linkages are the basis for how students comprehend, apply, analyse, synthesise, and evaluate knowledge learned throughout the education process.

4.2.4 The process of developing a draft conceptual framework

The process of developing a draft conceptual framework involved several steps. The first step was to identify the theoretical perspective in regards to the nature of conceptual frameworks and contemporary trends and issues shaping curricula. Section 2.2 of the second chapter explored this theoretical point of view. The next step was to analyse the effectiveness and appropriateness of current undergraduate curricula models. As part of this step, the evidence regarding the feasibility and appropriateness of introducing nursing curricula from developed countries into developing countries was analysed. Chapter 3 described the findings of two systematic reviews in relation to these questions. The third step was to analyse the current trends and issues in healthcare and nursing at the local and international levels to capture the major concepts that should be incorporated into nursing curricula. The second chapter (section 2.3; 2.4; 2.5) explored these trends and issues. The process of developing a draft conceptual framework for undergraduate nursing curricula in Sri Lanka is shown in Figure 2.
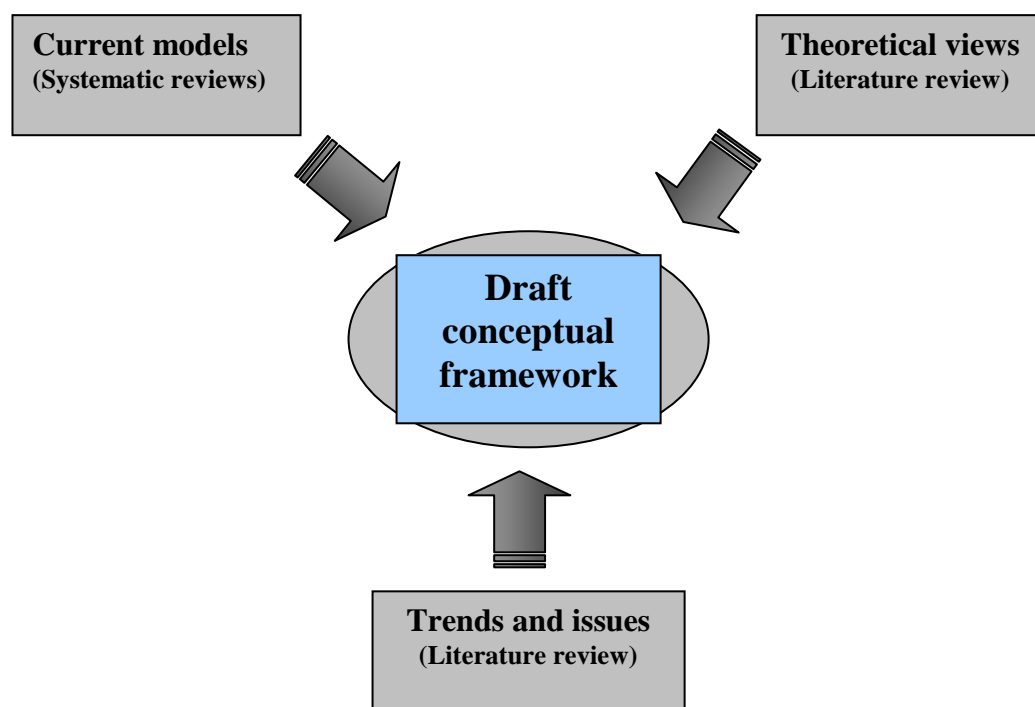
Figure 2: The process of developing a draft conceptual framework for undergraduate nursing curricula in Sri Lanka

4.3 The draft conceptual framework

The draft conceptual framework is eclectic in nature and based on the philosophies of humanism and existentialism as outlined in 2.3.4.2.2. The draft conceptual framework consists of five components: professional nursing, teaching and learning, skills, values and beliefs, and knowledge (Figure 3). Such a schema facilitates critical examination of each component while producing a systematic framework to design, direct and evaluate curriculum.

4.3.1 Description of the conceptual framework

Professional nursing is the practice of a scientific discipline that directly benefits society through promotion of health; prevention of illness; the care of ill, disabled and dying people; and ultimately enhancing the quality of life. Professional nursing should integrate theory, practice and research of the discipline, and respond to the constantly changing healthcare environment through professional roles, incorporating evidence based practice and the legal and ethical framework of the profession.

Nursing education (teaching and learning) is the foundation of professional nursing and the process of acquiring the core competencies (knowledge, skills, and attitudes

[values and beliefs]) that are essential to the goals of professional nursing and which form the three pillars of the framework. Teaching and learning should reflect student-centred and inter-disciplinary education, and promote students' acquisition of discovery learning and life-long learning skills through flexible delivery incorporating educational technology.
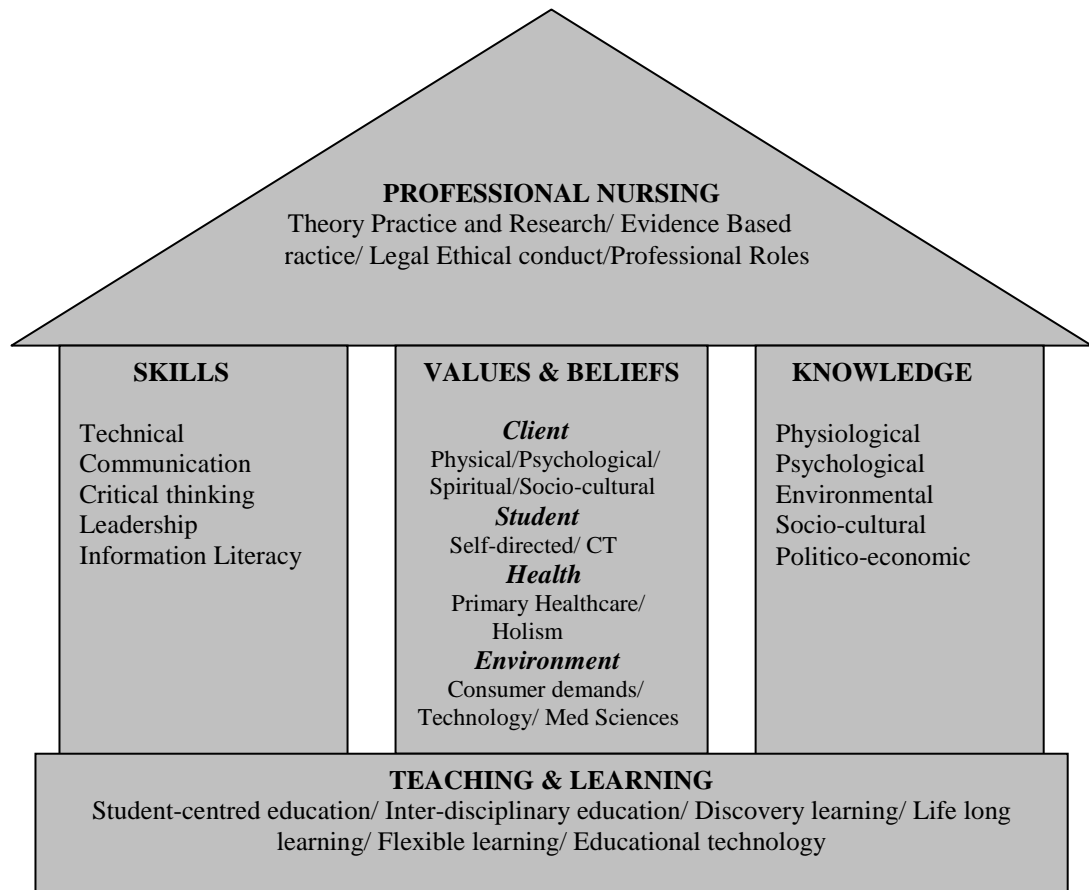
PROFESSIONAL NURSING
Theory Practice and Research/ Evidence Based
ractice/ Legal Ethical conduct/Professional Roles

SKILLS	**VALUES & BELIEFS**	**KNOWLEDGE**
Technical	*Client*	Physiological
Communication	Physical/Psychological/	Psychological
Critical thinking	Spiritual/Socio-cultural	Environmental
Leadership	*Student*	Socio-cultural
Information Literacy	Self-directed/ CT	Politico-economic
	Health	
	Primary Healthcare/	
	Holism	
	Environment	
	Consumer demands/	
	Technology/ Med Sciences	

TEACHING & LEARNING
Student-centred education/ Inter-disciplinary education/ Discovery learning/ Life long
learning/ Flexible learning/ Educational technology

Figure 3: Draft conceptual framework for nursing curricula in Sri Lanka

4.3.2 Components of the draft conceptual framework

The draft conceptual framework consists of three major components: professional nursing; nursing competencies (skills, values and beliefs, knowledge); and teaching and learning.

4.3.2.1 Professional nursing

As described earlier, professional nursing integrates theory, practice and research of the discipline, and responds to the constantly changing healthcare environment through professional roles, incorporating evidence based practice together with the legal and ethical framework of the profession. The International Council of Nurses' (ICN) definition of nursing was used as the basis for professional nursing in Sri Lanka. The ICN defines the nature of nursing as follows:

> *Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles* (International Council of Nurses 2006c)

Theory, practice and research are the core elements in any applied discipline, and have a reciprocal relationship (Morse 1996; McKenna 1997; Upton 1999). Nursing theory affiliated with evidence-based practice is seen as a basis of the development of professionalism and subsequently autonomous nursing practice (Lutjens & Horan 1992; Upton 1999).

Evidence-based practice is a hallmark of professional nursing and it is critical for quality, cost-effective healthcare (Thompson & Cullum 1999; International Council of Nurses 1999a; Royal College of Nursing 2004; Cronenwett, Sherwood, Barnsteiner, Disch, Johnson, Mitchell, Sullivan & Warren 2007; Day & Smith 2007; Sherwood & Drenkard 2007). Evidence-based practice incorporates the conscientious, explicit, and judicious use of current best evidence from well designed systematic research, a clinician's expertise, and patient values for making decisions about the care of individual patients (Sackett *et al.* 1996; Sackett *et al.* 2000; Pearson *et al.* 2005).

The ethical and legal framework of the profession promotes professional status and image building of the profession and ensures the protection of patients, practice, the profession and co-workers (Carr 2000; Beauchamp & Childress 2001; Liaschenko & Peter 2004; Meulenbergs, Verpeet, Schotsmans & Gastmans 2004; International Council of Nurses 2005). The *ICN Code of Ethics for Nurses* affirms that nurses have a fundamental responsibility to promote health, to prevent illness, to restore health

and to alleviate suffering to all people through their professional roles in healthcare (International Council of Nurses 2005).

4.3.2.2 Nursing competencies (skills, knowledge and attitudes)

Nursing competencies are the integration of specific skills, knowledge and attitudes (values and beliefs) that are required for a registered nurse to practise safely and ethically in the health and nursing care environment (Boland 1998; Australian Nursing Council 2000; CNA 2000; Campbell & Mackay 2001; WHO 2002). Nursing skills are deliberate activities in a cognitive and psychomotor domain that implement knowledge and attitudes of nursing (Johnson & Webber 2001). Nursing skills are incorporated with technical (caring) skills (AACN 1998; Royal College of Nursing 2004a), communication skills (Benner 1984; Reid 1994; AACN 1998; Webber 2002), critical thinking skills(NLN for Nursing Accrediting Commission 1997; AACN 1998; Australian Nursing Council 2000; McEwen & Brown 2002; Webber 2002; WHO-ROSEA 2005; Jayasekara, Schultz & McCutcheon 2006b), leadership skills (International Council of Nurses 2000; Webber 2002; WHO-ROSEA 2005) and information literacy (Verhey 1999; Wallace, Shorten, Crookes, McGurk & Brewer 1999; Gabb & Keating 2005; WHO-ROSEA 2005; AACN 2005a; Sherwood & Drenkard 2007).

Nursing knowledge is influenced by formal education and the ongoing development of nursing skills and attitudes (Webber 2002). The discipline of nursing is based on a discrete scientific body of knowledge with unique and distinctive applications (AACN 1998; Pearson, Vaughan & Fitzgerald 2005). Nurses' knowledge incorporates with physiological, psychological, environmental, socio-cultural and politico-economic knowledge areas (AACN 1998; Crisp & Taylor 2001; Webber 2002).

The values and beliefs of nursing in this conceptual framework are based on the meta-paradigm of nursing: the client, student, health and environment. Professional values and beliefs that are the foundation of professional practice guides interaction with patients, colleagues, other professionals and the public (AACN 1998). The nature of the human being that is a central concept of nursing theory and practice, includes physical, psychological, socio-cultural and spiritual dimensions (Thorne, Canam, Dahinten, Hall, Henderson & Kirkham 1998; Crisp & Taylor 2001). Students are viewed as self-motivated, self-directed, independent individuals who

bring varied personal experiences to the learning situation (WHO-ROSEA 2005; OUSL 2006). Healthcare is considered as the integration of primary healthcare concepts and holism (the notion that the entire physical, mental and social aspect of life) provides for attaining a level of health that will permit people to lead a socially and economically productive life (AACN 1997; International Council of Nurses 2000a). The increasing and diverse demands of health care consumers, the integration of new technology, and the advancement of medical sciences are considered as the environment of health and nursing that generate significant challenges for nursing services and educational institutions in terms of maintaining the quality of services and preparing nurses for the future (MacLeod & Farrell 1994; Aiken *et al.* 1998; International Council of Nurses 1999; Evans 2001; Long 2004; Bartels 2005; Covaleski 2005; Candela *et al.* 2006).

4.3.2.3 Teaching and learning

As mentioned above, teaching and learning (nursing education) is the foundation of professional nursing and the process of acquiring competencies that are essential to the goals of professional nursing. Student-centred teaching and learning strategies facilitate the enhancement of clinical competencies of nurses (Dougal & Gonterman 1999; Mundinger, Cook, Lenz, Piacentini, Auerhahn & Smith 2000; Clare *et al.* 2002; Simpson & Courtney 2002; O'Shea 2003; Mangena & Chabeli 2005). Inter-disciplinary education assists graduates to operate within an integrated approach to healthcare delivery (AACN 1998; Heller *et al.* 2000; Heath 2002; Institute of Medicine 2003; WHO-ROSEA 2003; Royal College of Nursing 2004; Bryant 2005; WHO-ROSEA 2005; Barnsteiner, Disch, Hall, Mayer & Moore 2007). Self-directed discovery learning is essential in assisting nurses to meet the challenges of the modern healthcare environment (O'Shea 2003; Levett-Jones 2005; WHO-ROSEA 2005; OUSL 2006). A life-long learning culture enables continuous growth and development that is essential to maintain professional standards (Heller *et al.* 2000; WHO-ROSEA 2003; Royal College of Nursing 2004; Bryant 2005). A flexible system of learning incorporates the needs of learners and it is a motivational factor for recruiting a future workforce (Clare *et al.* 2002; Royal College of Nursing 2004; Gabb & Keating 2005). The integration of educational technology into teaching and learning is suggested as the key to success for some of these challenges (AACN 1999; Institute of Medicine 2003; Royal College of Nursing 2004).

4.4 Conclusion

The purpose of this chapter was to present a draft conceptual framework for undergraduate nursing curricula in Sri Lanka. The draft conceptual framework incorporates widely recognised concepts of the nursing discipline from international, regional and local contexts that reflect the contemporary needs of the nursing profession, and current and future demands of healthcare. However, it is crucially important to evaluate the appropriateness and feasibility of this draft conceptual framework within the Sri Lankan cultural, social and economic context through the feedback and opinions of key stakeholders in Sri Lanka.

Chapter 5 Evaluating the feasibility and appropriateness of the draft conceptual framework: methodology and method

5.1 Introduction

In the process of developing the draft conceptual framework, a comprehensive systematic review was conducted to analyse the feasibility and appropriateness of introducing the nursing curricula from developed countries into developing countries. This systematic review revealed that the direct applicability of a curriculum model from one country into a different cultural context is not appropriate without first assessing its cultural relevancy (Jayasekara & Schultz 2006). The draft conceptual framework of this study was based on a mixture of international, regional and Sri Lankan research evidence and concepts as described in the previous chapter. It was crucially important to evaluate the feasibility and appropriateness of the draft conceptual framework within the Sri Lankan cultural and economic context by seeking the input and feedback of key stakeholders in Sri Lanka.

This chapter describes the theoretical and practical perspectives of evaluating the feasibility and appropriateness of the draft conceptual framework for undergraduate nursing curricula in Sri Lanka. It is divided into two sections.

1. **Research methodology:** The theoretical and conceptual underpinnings of the study are explored in this section, with a focus on the rationale for the use of focus groups.

2. **Research method:** A step-by-step description of the focus group method is presented in this section.

5.2 Research methodology

5.2.1 Theoretical framework of the study

The purpose of the study was to develop an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka. The process of developing the conceptual framework involved several steps:

1. Analysing nursing and educational theories and concepts to understand the nature of conceptual frameworks within nursing curricula;

2. Synthesising the evidence on effectiveness, appropriateness and feasibility of current curricula models/conceptual frameworks, and its potential applicability in Sri Lanka;

3. Analysing current trends and issues in global, regional (South-East Asia) and local (Sri Lanka) healthcare, and nursing education to capture the concepts that should be addressed in the conceptual framework;

4. Developing a draft conceptual framework using the above findings;

5. Evaluating the feasibility and appropriateness of the draft conceptual framework for Sri Lanka, getting feedback and opinions from the key stakeholders of the nursing profession;

6. Developing an evidence-based conceptual framework that is feasible and meaningful in the Sri Lankan context.

This evidence-based approach generated knowledge and evidence to effectively and appropriately meet the needs of developing a conceptual framework in ways that are feasible and meaningful to a Sri Lankan context. The theoretical and conceptual underpinning of the meanings of the terms *feasibility, appropriateness, meaningfulness* and *effectiveness* were derived from the Joanna Briggs Institute's (JBI) model of evidence-based healthcare (Pearson *et al.* 2005). Pearson *et al* (2005, p.210) argue that *evidence* for healthcare belongs to four dimensions as follows:

Evidence of feasibility: Feasibility is the extent to which an activity is practical and practicable. Feasibility is about whether or not an activity or intervention is physically, culturally or financially practical or possible within a given context.

Evidence of appropriateness: Appropriateness is the extent to which an intervention or activity fits with or is apt in a situation. In education, appropriateness is about how teaching and learning activity or intervention relate to the context in which education is taking place.

Evidence of meaningfulness: Meaningfulness is how an intervention or activity is experienced by the consumers. Meaningfulness relates to the personal experience, opinions, values, thoughts, beliefs, and interpretations of consumers.

Evidence of effectiveness: Effectiveness is the extent to which an intervention, when used appropriately, achieves the intended effect. Effectiveness is about the relationship between an intervention and its outcomes.

The type of evidence depends on the nature of the activity and purpose (Pearson *et al.* 2005). In this study, two systematic reviews were conducted using the widely known JBI method of systematic reviews (Pearson 2004) to synthesise the evidence on effectiveness, appropriateness and feasibility of curricula models/ conceptual frameworks, and its potential applicability in Sri Lanka. The next stage of the research process was to seek feedback on the draft conceptual framework from key stakeholders in Sri Lanka.

5.2.2 Focus group discussion

5.2.2.1 Definition

Morgan (1996, p.130) defines a focus group as "a research technique that collects data through group interaction on a topic determined by the researcher." This definition provides the three major components of the focus group research as (1) a method devoted to data collection; (2) interaction as a source of data; and (3) the active role of the researcher in creating group discussion for data collection (Morgan 1996). A focus group, however, is not the same as a focused interview. A focused interview with a group concentrates on what each group member feels or thinks about a specific issue (Morgan 1996; Kidd & Parshall 2000; Curtis & Redmond 2007). In comparison, the key feature of focus groups is the active interaction among participants to explore their views and opinions. In this respect, focus groups are distinct from other methods such as Delphi groups, nominal groups, brainstorming and consensus panels, which seek to determine a consensus between participants (Powell & Single 1996; Kidd & Parshall 2000; Webb & Kevern 2001). In comparison with other data collection methods, it can be concluded that the real strength of focus groups is not simply in exploring what participants have to say, but in providing insights into the sources of complex behaviours and motivations (Morgan & Krueger 1993).

5.2.2.2 Rationale for using focus group discussion

Focus group discussions are the most appropriate method for the purposeful use of interaction in order to generate meaningful opinions, suggestions and feedback (Krueger & Casey 2000; McLafferty 2004). Focus groups are not only used to gain new knowledge or evaluate services and programs but also to seek opinions, values and beliefs in a collective context (Powell, Single & Lloyd 1996; Krueger & Casey 2000; Madriz 2000; Curtis & Redmond 2007). In particular, the focus group provides a means of listening to the perspective of key stakeholders and learning from their experiences of the phenomenon (Halcomb, Gholizadeh, DiGiacomo, Phillips & Davidson 2007). Powell *et al* (1996) argue that focus groups are particularly useful when current knowledge about a phenomenon is inadequate and expansion is important. The focus group method is particularly important when the issue being investigated is complex and when concurrent use of additional data is necessary for validity (Powell *et al.* 1996). The ability to observe the extent and nature of participants' agreement and disagreement is a unique strength of focus groups (Morgan 1996). Thus, focus groups have clear potential where the researcher is interested in processes whereby a group jointly constructs meaning about a topic.

The main idea behind the focus group is that the group dynamic can assist people to express and clarify their views in ways that are less likely to occur in a one-to-one interview (Krueger & Casey 2000; Jamieson & Williams 2003; Burns & Grove 2005). In addition, a homogeneous group provides the participants with freedom to express thoughts, feelings and behaviour candidly (see p.125 for details) (Morrison & Peoples 1999). It is believed that group situation may reduce the influence of interviewer on the participants by tilting the balance of power toward the group (Madriz 2000).

For all of the reasons listed above, it is clear that focus group discussion is the most suitable method to obtain the key stakeholders' views, opinions, suggestions and feedback for the draft conceptual framework and exploring new concepts through active interaction between participants in a collective context.

5.2.2.3 History of focus group

The origin of the focus group can be traced back to the time when social scientists first began employing non-directive interview techniques (Happell 2007). In 1926, Bogardus (Bogardus 1926) originated the focus group technique as a tool for

understanding people's attitudes and opinions about different social issues (e.g. race relations) (Powell *et al.* 1996). However, Morgan (1998) describes the history of the focus group as divided into three periods: (1) focus group in social science, (2) focus group in market research, and (3) focus group as a widespread research method. During the early 1940s, Robert Merton and Paul Lazarsfeld introduced the method of group interviewing into the social sciences (Morgan 1998; Madriz 2000; Puchta & Potter 2004). They used focus group interviews to evaluate the response of a group of participants to wartime radio broadcasts at the Office of Radio Research at Colombia University in 1941(Madriz 2000; Puchta & Potter 2004). Focus group interviews have been used consistently in market research since the 1950s although their use in other applications waned until the late 1980s when there was renewed interest in promoting the use of focus groups in social science research and a wide range of academic and applied research areas (Morgan 1998; Madriz 2000; Halcomb *et al.* 2007). Today, the focus group is used as a research method in many fields, including social sciences, health and nursing to explore a range of issues (Curtis & Redmond 2007; Halcomb *et al.* 2007; Happell 2007).

5.2.2.4 Theoretical views of focus groups

Historically, the focus group method developed and matured outside of the major qualitative methodological traditions (Kidd & Parshall 2000). Although some early field researchers (e.g. Bronislaw Malinowski: 1914; William Foote Whyte: 1943) acknowledged using focus group interviews, they did not explicitly reference it as a distinctive methodology (Madriz 2000). Krueger (2000) argues that the integration of qualitative techniques, especially the focus group into social science has been slow due to the emphasis on quantitative methods for social inquiry.

Generally, the qualitative research paradigm includes a range of methodologies: phenomenology, grounded theory, ethnography, historical research, philosophical inquiry, and critical social theory (Burns & Grove 2005; Speziale & Carpenter 2007). In most research literature, focus groups are described as a qualitative data collection method. As a data collection method, the focus group involves the interaction within a group to elicit rich experiential data (Asbury 1995) and this strategy is not compatible with:

1. Phenomenology which attempts to disclose the essential meaning of participant's lived experience through in-depth individual interviews (van Manen 1990),

2. Grounded theory which aims to generate theory that is verified through systematic, concurrent data generation and constant comparative data analysis through several data collection strategies (e.g. interviews, observation, documents etc.) (Strauss & Corbin 1998),

3. Ethnography which is the work of describing culture, and explores the meaning of action and events of the culture using a continuous process of interviewing, observing, reviewing and analysing data (Spradley 1997).

It is clear that the focus group as a method was not originally developed or integrated into any of the major qualitative methodologies. However, the focus group method is becoming popular in feminist and postmodernist ethnographic studies (Madriz 2000). These researchers contend that the focus group method recovers the voice of members of marginalised groups in the society (Madriz 2000; Clark, Cary, Diemert, Ceballos, Sifuentes, Atteberry, Vue & Trieu 2003). The focus group method is also widely used in social sciences and health sciences in combination with other research methods (e.g. survey research), enabling the researcher to triangulate the data and enhance the findings of the study (Morgan 1996; Speziale & Carpenter 2007). Kidd and Parshall (2000) suggested that the findings of focus groups can be further improved by conducting multiple groups (ideally from multiple sites) and including other data sources.

The theoretical underpinnings of focus groups can be traced to the assumptions of the interpretive paradigm. Interpretive research generates new meaning and information from the participants' point of view, therefore, it values human perceptions and subjectivity and seek to explore what an experience is like for the people concerned (van Manen 1990). In this paradigm, inter-subjectivity (mutual recognition) between researcher and research participants is fostered and valued (Horsfall 1995). This paradigm involves listening to people or watching what they do and using the human imagination and understanding of those participating in order to interpret their meaning (Pearson *et al.* 2005). The researcher must understand the socially constructed nature of the world and realise that values and interest become part of the research process (Fitzgerald 2000). In fact, the values of researcher and participants can become an integral part of the research.

5.2.2.5 Uses of focus groups in health and nursing

In health and nursing research, focus groups are invaluable for guiding the development of interventions and ensuring that these meet consumer needs (Morgan 1997). The focus group method has been commonly used in healthcare and nursing studies. It is typically used in healthcare research to (1) develop or improve research instruments (e.g. interviews guides, questionnaires) (Powell *et al.* 1996; DeVellis, Patterson, Blalock, Renner & DeVellis 1997; Arnetz, Hoglund, Arnetz & Winblad 2007) (2) explore issues and generate data (Gray-Vickrey 1993; Capitulo 1998); and (3) evaluate and validate findings from other research methods (or triangulation) (Lansbury 2000; Milne & Moore 2006).

The ability of focus groups to provide information about complex and multifaceted topics is exploited extensively in nursing education research, especially in curriculum development. Several studies have used the focus group method to explore the students' perspective and experiences of teaching and learning, for example: MacIntosh 1993; Chaboyer, Dunn, Theobald, Aitken & Perrott 2001; Duke 2001; Matthew-Maich, Mines, Brown, Lunyk-Child, Carpio, Drummond-Young, Noesgaard & Linton 2007; Ranse and Grealish 2007. The focus group method is widely used in curriculum development to obtain key stakeholders views and opinions. The curriculum committee of the University of San Diego, Philip Y. Hahn School of Nursing conducted a study with focus groups comprised of nurses from several different areas of practice to obtain information for curriculum changes (Clark 1997). Focus groups comprised of nurses and community members were used to develop and expand pre-defined themes of a primary healthcare based curriculum (Kooker, Shoultz, Sloat & Trotter 1998). The authors suggested that the focus group method yielded an incredible richness of data. The Australian Universities Teaching Committee's (AUTC) commissioned study developed and implemented a framework to evaluate nursing curricula, teaching strategies, assessment practices and learning outcomes. The project team consulted key stakeholders via three networks of experts, 21 national focus groups, four surveys, and undertook extensive document analyses of 26 current undergraduate nursing curricula in Australia (Clare *et al.* 2002). Both the focus groups and the academic network survey identified strong support for the continuation of broad-based, comprehensive, university-based bachelor degrees for nurse education (Clare *et al.* 2002).

5.2.2.6 Design of the focus groups

Literature suggests that each focus group be comprised of homogeneous participants - in terms of the nature of their experience of the issue - to avoid the generation of power issues and promote the comfort of participants (Morgan & Krueger 1993; Carey 1994; Morgan 1998; Clarke 1999; Krueger & Casey 2000). Carey (1994) recommended that focus groups should be homogeneous in terms of age, status, class, occupation and other characteristics, as they will influence whether participants interact with each other. However, some researchers reject the use of homogeneity in focus group and suggest using heterogeneous groups in exploratory type studies as it provides rich data and explores different views of the topic investigated. (MacIntosh 1993; Powell *et al.* 1996). Finally, the nature of the group depends on the available time, resources and convenience for participants (Powell *et al.* 1996).

The interpretive approach allows the researcher to select participants on the basis of suitability and their experience with phenomenon under investigation using convenience or purposive sampling (Hollowaay & Fulbrook 2001; St. John 2004). It is generally recognised that the sample recruited in focus groups is not representative of the entire population but rather a snapshot (Morgan & Krueger 1993). However, the size of the group and the number of groups is dependent on the purpose of the research and the type of participants (St. John 2004; Halcomb *et al.* 2007).

Despite the various suggestions for optimal participant numbers, it is important that the size of each group is sufficiently large to create discussion but not too large to prevent some members sharing their insights within the available time (Krueger & Casey 2000). Most authors suggest that an adequate group size is from 4-12 participants, with the optimal size being between five and ten individuals (Morgan 1998; Sim 1998; Beyea & Nicoll 2000; Krueger & Casey 2000). However, it is argued that smaller groups can be effective for complex topics, particularly with expert participants (Krueger & Casey 2000). A number of authors suggest that it is prudent to over recruit, usually two participants, due to potential late cancellations (Morgan 1998; Halcomb *et al.* 2007).

The best number of focus groups to conduct depends upon the nature and complexity of the area under investigation (Powell & Single 1996). Most authors support the use of four to six focus groups in order to generate adequate data (Morgan 1996; Krueger

& Casey 2000; St. John 2004). The typical justification for this range is that the data become saturated and further focus groups are unnecessary (Morgan 1996; Sim 1998; Jamieson & Williams 2003; St. John 2004).

5.2.2.7 Reliability and validity

It is well established that the focus group method is a useful and effective mechanism for deriving collective opinions, values and beliefs. However, several researchers have critically analysed the methodological and pragmatic use of this method (Webb & Kevern 2001; Chioncel, van der Veen, Wildemeersch & Jarvis 2003). In response, attention has been directed at the reliability and validity of focus group data generation. Generally, reliability is the extent to which the results of a study or a measure are repeatable in different circumstances whereas validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. Although Patton (2002) argues that validity and reliability are important in qualitative research (Patton 2002), others argue that the concept of reliability is even misleading in qualitative research (Stenbacka 2001; Flick 2006). In reality, the quality of a study in each paradigm should be judged by its own paradigm's terms (Healy & Perry 2000). For example, while the terms reliability and validity are essential criterion for quality in quantitative paradigms, in qualitative paradigms the terms credibility, neutrality or confirmability, consistency or dependability and applicability or transferability are to be the essential criteria for quality (Lincoln & Guba 1985). However, the examination of trustworthiness is crucial to ensure reliability and validity in qualitative research. Seale (1999 p.266) states that the "*trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability*".

5.2.2.7.1 Reliability/Dependability

According to Lincoln and Guba (1985) and Seale (1999) the term dependability in qualitative research closely corresponds to the notion of reliability in quantitative research. However, Kidd and Parshall (2000) discuss the reliability of the focus group method using conventional terms of stability, equivalence, and internal consistency. Stability refers to the consistency of issues over time (Kidd & Parshall 2000). Equivalence is a term used to describe the consistency of the moderators or coders of the focus group (Kidd & Parshall 2000). Internal consistency of coding relates to the importance of having one team member assume the overall

responsibility for analysing the data (Kidd & Parshall 2000). The steps used to enhance the reliability of this study are discussed in the method section of this chapter.

5.2.2.7.2 Validity

In qualitative research, validity receives more attention than reliability (Flick 2006). Validity is assessed in terms of how well the research tools measure the phenomena under investigation (Punch 1998). Creswell & Miller (2000) suggest that the validity of qualitative research is affected by the researcher's perception of validity in the study and own choice of paradigm. As a result, many researchers have developed their own concepts of validity and have often generated or adopted what they consider to be more appropriate terms, such as, quality, rigor and trustworthiness (Lincoln & Guba 1985; Seale 1999; Creswell & Miller 2000; Davies & Dodd 2002).

5.2.2.8 Limitation of focus groups

As with any other research method, focus groups have some limitations. As previously mentioned, focus group methods are usually not used to build consensus (Carey 1995; Jamieson & Williams 2003; St. John 2004). Some researchers feel that focus groups are less useful for investigating sensitive topics such as sexual activities or behaviours that may be considered socially deviant, such as drug use or sexual misconduct, as participants are reluctant to talk about such issues as a group (Kitzinger 1994; Morgan 1998; St. John 2004; Halcomb *et al.* 2007). However, other researchers argue that focus group methods were successful in addressing sensitive topics as it enabled participants to share their experiences (Strickland 1999; Madriz 2000). Group interaction is limited by the personal characteristics of participants and social factors such as class, gender and race (St. John 2004). The interaction of the participants might be limited if power differentials exist between participants of the focus group, as those participants in the less powerful situation might indicate agreement with their more powerful colleagues in order to avoid perceived reprisals (Krueger & Casey 2000; Happell 2007). The potential domination of the group by one or a small number of participants may suppress an emerging group view and group interaction (Denzin & Lincoln 2003; Bryman 2004; Happell 2007). In addition, there are inherent practical limitations with conducting focus groups. Compared to individual interviews, a focus group is usually more difficult to arrange, and bringing participants together require energy, time and money (Krueger & Casey

2000; Bryman 2004; Curtis & Redmond 2007). Additionally, a group situation can lead to uncontrolled tangential discussion producing irrelevant responses and data, especially where a moderator is less experienced (Krueger & Casey 2000; Bryman 2004; St. John 2004).

5.2.3 Conclusion

The process of developing an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka is based on the theoretical and conceptual underpinnings of the meanings of terms *feasibility, appropriateness, meaningfulness* and *effectiveness*. Despite the absence of a clearly defined methodological framework, the focus group method is an effective data collection method for a range of issues, in particular where the researcher seeks opinions, values and beliefs in a collective context. The focus group method is widely used in curriculum development on its own or with other data collection methods to obtain key stakeholders' views and opinions. Combining the focus group findings with evidence from the literature is crucial to the development of a feasible, meaningful and appropriate conceptual framework for undergraduate nursing curricula in Sri Lanka.

5.3 Research method

5.3.1 Introduction

The aim of this section is to present a summary of the method of focus group discussions with key stakeholders in Sri Lankan nursing education. The research method is described under three stages: (1) planning, (2) conducting and (3) analysing and reporting of focus groups.

5.3.2 Planning for focus group discussions

As with any research, the planning stage is crucial to the success of focus group discussions (Curtis & Redmond 2007). In this stage, attention was paid to developing objectives for focus groups with guides for the discussion, selecting and notifying participants, and ethical considerations.

5.3.2.1 Discussion guides

A discussion guide consisting of a list of proposed questions were developed prior to the focus group discussion to help the moderator direct group discussions and to ensure that all the desired information was sought (Dilorio, Hockenberry-Eaton, Maibach & Rivero 1994) (Appendix 6). It has been shown that discussion guides enhance the consistency of data obtained between groups (stability) and assists in efficient, high quality data analysis (Krueger 1998; Kidd & Parshall 2000). Morgan (1996) called this approach 'standardisation' because it addresses the extent to which identical questions and procedures are used in every group. The complexity of the questioning structure for the focus group is also dependant upon the nature of the topic and depth of the discussion (Morgan 1997). However, it is advocated that a 'funnel' approach be utilised to frame the development of the questioning route (Morgan 1996; Morgan 1997; Beyea & Nicoll 2000). In the discussion guide, an open-ended general question was asked for each concept of the draft conceptual framework: *"How is this concept meaningful, appropriate and feasible in relation to Sri Lanka"*. During the discussion, further questions were asked to guide the discussion and focus for specific details.

Two detailed information sheets for participants were also developed and distributed before the discussion as guidance for the discussion. The aim of the Information Sheet for Participants was to explain the purpose of the discussion, the focus group procedure and any ethical considerations (Appendix 7). The second information

sheet (The Study Information Sheet for Participants) was used to explain the draft conceptual framework and included concepts (Appendix 8). A computerised PowerPoint Presentation was also used to introduce the draft conceptual framework and to guide the ensuing discussion (Appendix 9). All of these methods were employed to ensure that the focus groups were well structured and addressed all topics in an adequate time (St. John 2004).

5.3.2.2 Selection of participants

Selecting and recruiting participants is one of the most important aspects of focus group research (Vaughn, Schumm & Sinagub 1996; Greenbaum 2000). Potential participants should be selected on the basis of their ability to provide insight into and information about the research topic, their experience of the phenomenon and ability to articulate their perspective on relevant issues (Morgan 1997; Krueger & Casey 2000). These are important aspects of protecting the validity of the research (Chioncel *et al.* 2003). In the present study, the target participants were key stakeholders of nursing education in Sri Lanka. These key stakeholders were selected from nursing professionals from different sectors of nursing services in Sri Lanka (e.g. education, administration, clinical etc.) as outlined by the health authorities in Sri Lanka (Ministry of Health Nutrition & Welfare 2002). It was decided that most participants should be experts in the field (e.g. senior educators), who could provide rich information about the topic (Bloor, Frankland, Thomas & Robson 2001).

5.3.2.3 Ethical considerations

Ethical considerations generally relate to issues surrounding informed consent, anonymity and confidentiality, data generation, treatment, publication and participant-researcher relationship (Speziale & Carpenter 2007). Ethical clearance is commonly achieved prior to participant contact (Jamieson & Williams 2003). Before the research commenced, ethical approval was obtained from the Research Ethics Committee of Royal Adelaide Hospital, Adelaide, South Australia and Sri Lanka Medical Association, Colombo, Sri Lanka (Appendix 10). In addition, the National Health Research Council in Sri Lanka granted permission to conduct focus group discussions in healthcare and education institutions in Sri Lanka (Appendix 11). In this study, a number of procedures were used to ensure the ethical standards as prescribed by above ethics approval authority were met.

All participants were made aware of the voluntary nature of their involvement and they received a detailed explanation, verbally and in writing, of what the research involves, including the aims and process of the research and the participants' involvement. The Information Sheet for Participants provided clear information on the purpose of the study, procedure (including the nature of the discussion, proposed length of the discussion, recording etc.), confidentiality, risk/benefit and payment details (Appendix 7). At the beginning of each focus group discussion consent to participate in the study was obtained. Copies of the consent form and a plain language statement were read and all participants signed the form (Appendix 12). Participants were offered the right to refuse to participate or to withdraw at any time and had the opportunity to ask questions or make comments about the research. Participants were informed that whether or not they participated would have no bearing on their employment.

The nature of a focus group means that information disclosed during the discussion will unavoidably be heard by all participants, as opposed to most qualitative research approaches where information is revealed only to the researcher (Smith 1995; Morgan 1998; Clarke 1999). It is impossible to guarantee participants' absolute confidentiality as the researcher has no control over participants after they leave the discussions (Smith 1995). However, the researcher encouraged participants to honour the request for confidentiality. In addition, privacy, confidentiality and anonymity were ensured throughout the research by using strategies such as the use of code names instead of identifiable information of places, events and situations. The participants were assured of anonymity and although some of the information they provided would be published, their names will not be associated with the publication. Focus group discussions were conducted in quiet places and participants were assured of privacy without interruption. If the interview was conducted during a workday, the researcher ensured that all participants had permission to attend the focus groups from nursing administration.

The tapes were kept in a locked office. All identifying information was removed from the transcripts during the transcription process. All transcripts were coded and the informed consent forms were stored separately from the data. All data collected in the research will be stored in a locked storage compartment for 15 years and the

responsibility for the safety and security of it will reside with the researcher or the researcher's supervisor if the researcher leaves the University of Adelaide.

5.3.3 Conducting focus groups

This section describes the implementation of the focus groups. It is discussed under two subsequent sections: (1) recruitment of participants, and (2) data collection.

5.3.3.1 Recruitment of participants

Morgan (1998) identified recruitment as the single most common source of failure of focus groups. The greatest difficulty is getting the participants together at the same time and place and establishing a climate that promotes comfort and discussion (St. John 2004). As a first step, a letter of invitation and permission to conduct a focus group was sent to the Heads of selected institutions in Sri Lanka followed by a telephone call (Appendix 13). In the next step, the researcher personally met all Heads of institutions, who agreed to allow their staff to participate in focus groups. During this visit, the researcher had opportunities to meet several potential participants and outlined the purpose and procedure of the discussion. Most participants were interested in being involved in the focus groups as this study was the first PhD nursing research in Sri Lanka. Then, working with the Heads of institutions, the researcher selected participants and made arrangements (e.g. date, time, place, and setting) to conduct focus groups within their institutions. Before the date, the researcher contacted all participants over the phone to ensure their attendance. It was earlier decided to conduct individual interviews with nursing directors (education, hospital services and public health) and two deans of medical faculties (where BSc Nursing programs had commenced), but it was not possible due to their professional and personnel commitments. The other major reason was that the researcher was not able travel safely in Colombo due to the security situation in the country.

5.3.3.2 Data collection

The data collection stage is divided into three sub-sections: (1) setting, (2) choice of the moderator, and (3) conducting the focus groups.

5.3.3.2.1 Setting

Focus groups should be set in private, comfortable environments that are non-threatening to participants (Winslow, Honein & Elzubeir 2002). In contrast to the

Western-style focus group that invariably involves sitting in a circular arrangement with an open space in front of participants, the Asian style of focus group used in the present study usually provides desks or tables for participants because a barrier placed in front of a person is a welcome physical defence (Halcomb *et al.* 2007). Halcomb *et al.* (2007) suggested that without this physical barrier, many participants would feel uncomfortable which might therefore hinder openness rather than enhance it. The use of stimuli in the focus group environment encourages the discussion and enhances the group interaction (White & Thomson 1995; Krueger 1998; Greenbaum 2000; Willgerodt 2003). The researcher used a PowerPoint Presentation using a notebook computer and displayed several related publications (e.g. Jayasekara, R.S. & McCutcheon, H., 2006, Jayasekara, R.S. & Schultz, T., 2007) and JBI published materials. In addition, small gift packs, including a pen and file folder, were provided to each participant, and refreshments were also served. These incentives do encourage participation and establish a friendly climate for the discussion (Dilorio, Hockenberry-Eaton, Maibach & Rivero 1994; McDaniel & Bach 1996; Halcomb *et al.* 2007).

Recording of focus groups should be as accurate as possible to maintain descriptive validity (content accuracy) and interpretative validity (grounded in the language of participants) (Chioncel *et al.* 2003). Audio-taping, and subsequent transcription is generally preferred (Chioncel *et al.* 2003). In the present study, two recordings were made because if one strategy failed, data would still be recorded by the other method. Where appropriate, notes were also taken by the researcher during the focus groups to assist with data analysis. Equipment was checked prior to commencement of the discussion to ensure capturing of the spoken word from all seating areas. Identifying different voices from the audio recordings may present difficulties (Jamieson & Williams 2003), therefore the researcher recorded the participants' name and voice in the introductory phase of the discussion. In addition, a photograph of the group was taken to assist with data transcription. Although video recording captures non-verbal communication patterns of participants, it was not used in these discussions as most Asians are reluctant to speak in the presence of a camera.

5.3.3.2.2 Choice of the moderator

The researcher (a Sri Lankan national) acted as the moderator. The choice of the moderator is crucial as the moderator must be intimately familiar with the aims of the

study, the questions related to the topic and methodological rigour of the study (Morrison-Beedy, Cote-Arsenault & Feinstein 2001). The moderator should have good communication skills, empathy, social awareness, flexibility, sensitivity and assertiveness (St. John 2004). The moderator should be a person who is directly involved in the project (McLafferty 2004) and is immersed in the culture of the group (Clark *et al.* 2003; Huer & Saenz 2003; Halcomb *et al.* 2007). The researcher was clearly in the best position to moderate these focus groups.

5.3.3.2.3 Conducting the focus groups

As participants arrived, they were welcomed and made to feel comfortable. The researcher provided participants with an opportunity to meet before the formal discussion commenced, providing light refreshment. This step helped to relax participants and foster an atmosphere conductive to frank discussion (Powell *et al.* 1996). This warm-up period is often longer in Asia than in Western countries (Davies 2002).

An effective introduction was seen as critical to the discussion as the initial stage of the focus group influences quality of data. The moderator (researcher) began each group discussion with an introduction that included: a welcome, a brief explanation of the research aim and purpose, importance of participants' views and opinions for this study, a brief description of moderator's role, and a reminder of how the discussion's data will be recorded. The moderator also introduced group rules that included: a request for only one speaker at a time to enhance audio-recording of the discussion, reinforcement of participants' right to withdraw from the study at any stage; and a request for confidentiality from participants.

After the introduction, participants were invited to read the information sheets and consent forms, and to ask questions for further clarification. Following consent, participants were asked to fill out a brief demographic questionnaire detailing their personal details such as official address, position, qualifications and level of experience (Appendix 14). As a next step, the moderator explained the draft conceptual framework using a PowerPoint presentation. After this stage, participants were encouraged to introduce themselves, enabling the moderator to capture their name and voice in audio-recording. Following introduction, the moderator facilitated the discussion using the guide sheet. As the discussion moved to another concept in the draft conceptual framework, the relevant PowerPoint slides were projected. This

strategy allowed participants to focus their discussion and the moderator to manage the scheduled time frame.

During the discussion, the role of the moderator was to ensure that participants covered each of the research questions, to ask for clarification or further discussion and, finally, to offer a brief summary (Field 2000). The moderator was actively involved in the group in the role of facilitator and managing a structured discussion, but was not so dominant as to bias or inhibit discussion (Morgan 1997; Kidd & Parshall 2000). While silent participants were encouraging to contributed to the discussion, dominant or aggressive participants were managed with care (Greenbaum 2000). English and Sinhala languages were used interchangeably during the discussions according to the wishes of the participants. Although the discussions were tape-recorded, note-taking was also employed to support the data analysis (Chioncel *et al.* 2003).

Although a focus group can often be longer than individual interviews (St. John 2004), the moderator was able to achieve the agreed time limit (90-120 minutes) in most of the groups. At the end of the discussion, the moderator summarised the issues raised as a way of cross-checking information or validating the issues raised (St. John 2004). It was helpful for the moderator to clarify what group members had heard in a brief summary and pose a final question: *"Is there anything that we have not asked that you would like to tell us?"* Finally, participants were given an opportunity to debrief and provide feedback as this is an essential part of a focus group (Morrison-Beedy *et al.* 2001). In addition, evaluation forms were distributed to record any viewpoints that were not expressed during this discussion (Appendix 15). When acknowledging their participation in the focus group discussions, participants were informed that they would receive a copy of a published paper on these discussions.

5.3.4 Data analysing and reporting

This section describes the data analysis and reporting stages of the focus group discussions.

5.3.4.1 Data analysis

Data analysis is the most difficult and time-consuming stage of the focus group method (Powell et al. 1996; Halcomb et al. 2007). This stage is described under the

following sub-sections: nature of focus group data, approaches to data analysis and stages of data analysis.

5.3.4.1.1 Nature of focus group data

Focus groups produce both individual and group level data and it is often complicated to unravel one from the other (Hyden & Bulow 2003). It is quite natural that many participants may shift their position or change their minds during the discussion and/or express different views at the end of the discussion as a result of group interaction. In response, what often emerges from a focus group discussion is a number of perspectives that capture the majority of the participants' standpoints (Parker & Tritter 2006). A major aim of focus group data analysis is to identify areas of agreement and controversy to better understand how perspectives arise and are modified in a group (Reed & Payton 1997; Sim 1998). However, a key challenge in data management and data analysis is capturing the group interaction data that is an important source of data in focus groups (Kitzinger 1994).

5.3.4.1.2 Approaches to data analysis

Most methodological literature on focus groups describe the formation and conduct of the groups (e.g. Morgan 1996) and data analysis (Krueger & Casey 2000; Bloor *et al.* 2001; Duggleby 2005). In addition, a number of sophisticated software programs are available to assist the researcher with data analysis [e.g., QSR NUD*IST, (Gahan & Hannibal 1998); MARTIN (Higgins 1998), NVivo (Richards 1999), JBI-QARI (Pearson 2004)]. Although, the literature do not provide a clear data analysis method for focus groups, in practice, most researchers use a combination of approaches (Jackson 1998, Green & Thorogood 2004). Some relevant approaches are discussed below.

5.3.4.1.3 Stages of data analysis

A major aim of data analysis in qualitative studies is to reduce data and to bring meaning to a situation rather than to search for truth (Rabiee 2004). Krueger & Casey (2000) indicate that the analysis should be systematic, sequential, verifiable, and continuous to minimise the potential bias introduced in analysing and interpreting focus group data. A clear documentation of the data analysis procedure allows another researcher to verify the findings, and it defends against selective perception and increases the rigour of the study (Rabiee 2004). This approach enhances the extent of dependability, consistency and conformability (Lincoln & Guba 1985). In

addition, Krueger and Casey (2000) suggest that the investigator who conducts the focus groups should analyse the data.

This study used a combined approach of incorporating data management techniques (Miles & Huberman 1994) and framework analyses (Krueger 1994; Ritchie & Spencer 1994). Krueger's (1994) method of data analysis provided a clear series of steps to managing the large amount and complex nature of qualitative data. After transcription and translation of focus group data, data analysis involved four key stages: familiarisation; first level coding (identifying a thematic framework); second level coding (indexing); charting and interpretation. Although framework analysis uses a thematic approach, it allows themes to develop both from the research questions (e.g. pre-defined concepts in the draft conceptual framework) and from the narratives of study participants (e.g. newly emerged themes).

5.3.4.1.3.1 Transcribing and translation

The audio taped interviews were transcribed verbatim using pen and paper and the transcripts were subsequently audited for the quality of transcription by listening to the audio-taped discussion whilst reading the transcription. During this stage, all identifying information and comments were removed from the transcripts and a pseudonym ascribed to each participant (e.g. Lecturers: Lec. 1, Lec. 2; Nurse Managers: NM 1, NM 2, etc.). The Sinhala language audiotapes (FG 3-6) were translated and transcribed into English. However, it was a challenge to produce meaning-based translations rather than word-for-word translation, because not all concepts are universal and not everything is translatable (Jones & Kay 1992; Esposito 2001; Kaiser, Barry & Kaiser 2002). The final transcripts were converted to MS-Word format. Each line of the transcript was numbered and a large right margin was left for the researcher's comments.

Stage 1: Familiarisation

The stage of familiarisation with data involved repeated listening to tapes and reading the transcripts in their entirety, and reading the observational notes taken during discussions. This step enabled the researcher to become immersed in the data and get a sense of the whole discussion before breaking it into parts (Krueger 1994).

Stage 2: First level coding (Identifying thematic frameworks)

The first level coding of the text to identify a thematic framework was conducted by writing notes in the margin of the text in the form of short phrases, ideas or concepts arising from the texts (Krueger 1994; Ritchie & Spencer 1994). At this stage, similar meanings were categorised under the major concepts (e.g. professional nursing, skills, knowledge and teaching and learning) and sub concepts (e.g. evidence-based practice, technical skills, psychological knowledge, life-long learning, etc.) of the draft conceptual framework (Miles & Huberman 1994).

Stage 3: Second level coding (Indexing)

The second level coding was carried out on the data under the major and sub concepts of the draft conceptual framework. This stage involved sifting the data, highlighting and sorting out quotes and determining which is group data or a strongly held opinion of an individual (Kidd & Parshall 2000). In this stage, new themes (in addition to pre-defined concepts and sub-concepts) began to emerge from the narratives of study participants.

Stage 4: Charting

This stage involved lifting the quotes from their original context and re-arranging them under the newly-developed appropriate thematic content. The major aim of this stage - to reduce data - was achieved by comparing and contrasting data and cutting and pasting similar quotes together.

Stage 5: Interpretation of data

This is the final stage of data analysis that involved determining the relationship between quotes, and links between the data as a whole. The direct quotes were grouped in accordance with their relationship to the sub-concepts or newly emerged themes. The themes (pre-defined concepts, sub-concepts and newly emerged themes) were validated by continual referral back to the original transcripts, observational notes and audio-tapes.

5.3.4.2 Reporting

The findings of focus group discussions are commonly reported in a narrative format that is consistent with qualitative reporting (Miles & Huberman 1994; Duggleby 2005). The report of the findings included direct quotations of participants (descriptive validity) and interpretation of their relationship to the themes (theoretical validity) (Chioncel *et al.* 2003). In addition, focus group findings should be reported

with descriptions of group interactions (Carey 1995) or detailed data excerpts when these can be explored to reveal meaningful findings (Wilkinson 1998). However, in the present study, non-verbal communication was not an obvious feature of group interaction. Therefore only verbal communication was analysed and reported.

5.3.5 Conclusion

The process of conducting focus groups requires planning, time and effort. Similarly, data analysis must be carefully planned and implemented. Specific issues relating to the location of the focus groups in the present study (Sri Lanka) were incorporated into the design and analysis of the focus groups. The credibility of data was ensured using multiple focus groups, a detailed discussion guide, encouragement of group interactions and combination of data analysis methods. The consistency of implementation of the focus groups and data analysis was achieved by having a single moderator and data analyser (the researcher). Transferability is facilitated by providing a clear process of the focus group method and direct quotes in data reporting. Finally, conformability is achieved by providing a detailed audit trail of the focus group method.

Chapter 6   Feasibility and appropriateness of the draft conceptual framework: findings of focus group discussions

Introduction

Focus group discussions were conducted to evaluate the appropriateness and feasibility of the draft conceptual framework for undergraduate nursing curricula in Sri Lanka. Another aim of the focus groups was to explore new concepts concerning the draft conceptual framework. This chapter presents the findings of the focus group discussions.

Focus group findings

A total number of 36 participants were included in six focus groups. A majority of participants were female ($n=$ 30; 83.3%). Generally, all participants were nurses registered with the Sri Lanka Medical Council and educated in three year general nursing programs of the Ministry of Health, Sri Lanka. A majority of participants were graduates ($n=24$; 66.6%) and nine of them (25%) held a postgraduate degree in nursing. All participants had extensive experience of nursing service (more than 10 years) and 80.5% ($n=29$) of participants had 10-30 years of experience. The practice and responsibilities of selected participants show significant differences due to their designations. These details are summarised in Table 8. The rich diversity of the participants' experience assisted the exploration the wide range of issues in nursing education. Most of the participants knew each other, whether as friends or colleagues.

Table 8: Participants' highest academic qualifications, experience and designations

Variable		*n*	%
Highest qualification	Postgraduate	9	25%
	Graduate	15	41.7%
	Diploma	10	27.8%
	Certificate	2	5.5%
Experience	Above 30	7	19.4%
	30-20	10	27.8%
	20-10	19	52.8%
Designation	Administrators	3	8.3%
	Academic Consultants	2	5.5%
	Lecturers	5	13.9%
	Senior Tutors	3	8.3%
	Tutors	16	44.4%
	Nurse Managers	3	8.3%
	Clinical Nursing Instructors	2	5.5%
	General Nurses	2	5.5%

In this study, six focus group discussions were conducted in multiple sites in Sri Lanka during the period of September to October 2006. The following institutions were involved; University of Sri Jayewardenepura; The Open University; Post Basic School of Nursing; and Schools of Nursing at Colombo, Ratnapura and Kurunegala. The number of participants per group varied from 3-9 due to availability of participants in each site. All participants were members of professional nursing associations (e.g. Sri Lanka Nurses Association, Graduate Nurses Foundation) and trade unions. Some participants hold official positions in these organisations. The make-up of each of the focus groups, in terms of total numbers of participants and their roles, is summarised in Table 9.

Table 9: Composition of focus groups

Focus Group	*n*	Adminis.	Manager	Educators (Lec/Tutor)	Clinicians (RN/CNI)
1	3	-	-	3	-
2	5	1	-	4	-
3	4	1	1	1	1
4	9	1	1	6	1
5	8	-	1	6	1
6	7	-	-	6	1

The focus group discussions were guided by the draft conceptual framework that consisted of pre-defined concepts. These major concepts were professional nursing, skills, knowledge, values and beliefs, and teaching and learning. In data analysis, several sub-themes emerged in addition to the pre-defined sub-concepts. The major concepts and pre-defined sub-concepts and sub-themes are as follows:

1. Professional Nursing

    1.1 Meaning of professional nursing in Sri Lanka

    1.2 Integration of theory, practice and research

    1.3 Feasibility of evidence-based practice

    1.4 Ethical and legal framework

    1.5 Professional roles

2. Skills

    2.1 Technical skills vs. clinical skills

    2.2 Communication skills

    2.3 Critical thinking skills

    2.4 Leadership skills

    2.5 Information literacy

    2.6 Interpersonal skills

3. Knowledge

    3.1 Physiological knowledge

    3.2 Psychological knowledge

    3.3 Socio-cultural knowledge

    3.4 Politico-economic knowledge

6.1   Professional nursing

Professional nursing consisted of pre-defined sub-concepts of theory, practice and research integration; evidence-based practice; ethical and legal framework; and professional roles. In the focus group discussion, the sub-theme "Meaning of professional nursing" in Sri Lanka emerged in addition to the listed sub-concepts of the draft conceptual framework. The following sub-themes related to professional nursing emerged from the discussion:

     6.1.1 Meaning of professional nursing in Sri Lanka

     6.1.2 Integration of theory, practice and research

     6.1.3 Feasibility of evidence-based practice

     6.1.4 Ethical and legal framework

6.1.5 Professional roles

6.1.1 Meaning of professional nursing in Sri Lanka

A majority of participants expressed their views about professional nursing, including how to approach professional nursing and people's perceptions of the profession. Additionally, participants provided recommendations to improve the professional status of nursing in Sri Lanka. One participant emphasised that professional nursing should focus on a holistic approach and evidence-based practice:

> *I believe our nurses have good knowledge and skills to practice professional nursing. Professional nursing… means not only completing the tasks; we have to focus on a holistic approach for professional nursing. In addition we have to use evidence-based practice in our healthcare system (Lec 4: L.321-325).*

Another participant expressed the widely held belief that nursing and health should focus on more than just caring, and this can be facilitated by integrating community health nursing into the nursing curriculum:

> *Professional nursing means not only considering caring but also prevention, promotion and rehabilitation should be included. So, it's very important to integrate the community health nursing into the curriculum (Lec 5: L.336-339).*

Another participant commented that the quality of professional nursing is based on nursing education and its quality:

> *When we're talking about profession, I think education is the basis. We are currently hampered with large number of students. It directly affects the quality of education. We need to consider this matter seriously if we want to build the profession (Tu 15: L.1194-1197).*

Several participants commented on the relationship between professional recognition, nursing services and the performance of nurses in clinical settings, and their ability to work independently:

> *Today our profession faces huge challenges. Because we have a lack of public recognition, most people don't recognise us as professionals like doctor or lawyers (Tu 12: L.1219-1221),*

No one recognises our contribution to healthcare. This is also similar in the clinical setting. Doctors make all the orders; we're just following their orders. It isn't really professional nursing (NM 2: L.859-861).

I think no one is superior to patients, but you know we have to stop our nursing care when the doctor comes to see the patient (Tu 13: L.1248-1250).

Some participants explored in more depth the possible reasons for the lack of professional recognition by the public. Although Buddhism has influenced the cultural belief that nursing the sick is the most respected form of work, the professional status of nurses is problematic in Sri Lanka. A lack of public awareness of nursing care and the perception that nurses engage only in limited intellectual performance is considered to be a major reason for this assertion:

...public perception is also part of this negative image because most people think nurses are doing dirty work such as cleaning patients. That is not recognised as a good job even though we follow Buddhist concepts (Tu 7: L.873-876).

It's very sad to say most think nurses are only doing cleaning type work in the hospital. I'm not sure of the reason for this, but you know even our nurses want their children to become doctors not nurses (Tu 14: L.1240-1243).

I think our procedural type works don't allow any intellectual ability for creative caring, because we're doing routine and procedural care, just like a machine (S Tu 3: L.1244-1247).

Some participants suggested several recommendations for improving the professional recognition of nursing. For example, they recommended improving professional recognition by providing guidance and awareness for students, building a stronger public image and engaging in professional work:

I would add something to that, if the student has a negative image of nursing, they would not like to work in clinical setting because they may think that cleaning patients is dirty work. Those young students don't like to do these jobs but they are encouraged to adapt to this situation and we need to guide them (Tu 14: L.1232-1236).

The public will recognise us as professionals if all of us (including doctors) come through the university education (Tu 13: L.1260-1262).

Nurses should know how to approach a patient. Recognition, respect and good communication are really important and will improve the public image of nursing (Tu 13: L.1271-1273).

...we cannot blame the shortage of nurses or inadequate resources for not practicing professional nursing. Our nurses need to think what they can do professionally even if they don't have enough resources (Con 1: L.328-332).

In summary, professional nursing as it is understood in Sri Lanka is based on public recognition of what nurses do, their inter-professional relationships and nursing care interventions. In Sri Lanka's current social situation, it is evident that the public are reluctant to recognise nurses as professionals. However it was also emphasised that their professional image and recognition could be improved through professional education and acquiring professional work and experience.

6.1.2 Integration of theory, practice and research

Most participants expressed their opinions concerning the current status of theory, practice and research integration, and many participants provided explanations for the gap between current theory, practice and research. They also suggested recommendations for bridging this gap with reference to Sri Lanka. Participants identified a large gap between theory and practice:

...there is a big gap between theory and practice in Sri Lanka. We teach students according to the curriculum but when they go to the clinical setting they cannot see these things. Some students told me that we haven't seen any nurses who work as they learnt from text books (Adm 1: L.563- 570).

We teach students various professional roles, but they cannot see or are unclear about these roles in clinical settings (Tu 3: L.645-646).

In some wards, we can't do any quality care, only doing routine things. How we can apply theory when we can't provide a bed for a patient? (CNI 2: L.1208-1210).

Some participants explained these problems in terms of poor educational preparation, poor coordination of education and service sectors, and lack of resources in clinical settings:

Our basic nursing program doesn't include sufficient theoretical foundation. I suppose we need a solid theoretical background for professional nursing (Tu 14: L.1202-1204).

Basically our nurses, who are prepared at diploma level, don't have enough knowledge of research and theory. They just follow traditional ways of practice (Lec 6: L.286-288).

I think a major constraint to bridging the theory practice gap is poor coordination of both sectors (NM 3: L.999-1000).

I think the major problem is not having proper coordination and relationship with nurses and tutors (RN 1: L.801-802).

We're doing ideal things (nursing interventions), but students can't do it in clinical settings due to lack of facilities. You know students can't make the ideal bed for patients as they learned in the class room because sometimes, there is only one bed sheet for a bed (Tu 9: L.803-807).

…our current working condition is very poor due to heavy workload, lack of resources, encouragement and recognition, and lots of things (S Tu 2: L.996-998).

Most participants suggested several recommendations for bridging the gap between theory and practice. These recommendations included modernising nursing care, proper coordination of the education and service sectors, and applying Western nursing concepts in Sri Lanka's nursing profession:

Our current nursing practice is too old compared to other countries. It should be modernised and needs more practical oriented nursing. Why I'm telling this, because our knowledge wasn't up-to-date (Tu 11: L.776-779).

Our nursing procedures should be validated using research findings and remove outdated things. I guess most nursing procedures are very old and not updated recently (Tu 16: L.1251-1253).

…without any hesitation, theory, practice and research should be integrated to nursing curricula (Con 1:L.276-277).

Our tutors are encouraged to work as coordinators as we use our clinical staff to give lectures because they are the clinical expert of the field. We also encourage tutors to go to the clinical setting regularly and keep in touch with new interventions (Adm 1: L.607-610).

We should seriously consider this gap as it is getting worse, first we have to discuss these matters at the national level or locally to get consensus from both sectors (NM 2: L.819-821).

This gap creates a huge problem, but it can be minimised using correct supervision. I mean we can guide and supervise students and nurses in hospital wards how to use nursing care appropriately using available resources (S Tu 2: L.1001-1004).

We basically used Henderson's theory incorporated with the nursing process. I would suggest analysing other theories and its potential applicability in Sri Lanka, and then we can integrate selected theories into practice and curriculum development (Tu 16: L.1198-1201).

Some participants argued that the cultural and economic context of the country should be taken into account when considering the potential applicability of Western concepts into Sri Lanka:

When we consider using theories, we seriously look at it, because most are Western theories, some are not applicable here. Some ideas can't apply here, as we have different culture. Theoretically all clothes of patients should be removed before bed bath, but we can't do that, because most do not agree to remove all clothes even in a bathroom (S Tu 3: L.1205-1207; L.1211-1214).

We currently use international guidelines and codes of practice. Some are problematic when we use them here. I mean we should have our own things that are more relevant to our situation (Tu 15: L.1257-1259).

...our country is a developing country and lacks resources for patient care compared to developed countries. We use most concepts and theories from developed countries. Some of these cannot be applied, but we have to use it using our existing resources or use alternatives that suits to our system (Adm 2: L.990-994).

We can't expect to do developed countries' nursing care here as we're in a developing country. What we need to do is use appropriate technology that is culturally and economically relevant to our country, and then we can develop better nursing care (Tu 7: L. 811-815).

It has been highlighted that participants believed there is a considerable gap between theory and practice. Inadequate educational preparation of nurses, poor coordination of the education and service sectors, and lack of resources in clinical settings were considered as reasons for this gap. There are, however, some solutions for bridging the gap: more appropriate education, better coordination of the education and service sectors, and examination of Western concepts' applicability to Sri Lanka's cultural and economic context.

6.1.3 Feasibility of evidence-based practice

Most participants spoke about the feasibility of applying evidence-based practice in Sri Lanka. A majority explained the situation of evidence-based practice in the country, and in particular the impediments to establishing evidence-based nursing

care. Several participants explained that there are considerable delays in implementing evidence-based practice due to inadequate educational preparation and the lack of a supportive environment:

> *Our basic nursing education (diploma pre-registration program) provides relatively good theoretical background, and a large amount of clinical hours, but no research component at all. Evidence-based practice is currently limited to the concept. Our program (Post RN BScN) provides broader knowledge on research; we talk about evidence-based practice, but after going back to the clinical setting they don't see any opportunity to practice it (Lec 4: L.264-270).*

> *Why we're lacking knowledge on these things is because our basic program (diploma) doesn't have a research component (Lec 1: L.42-44).*

> *Nurses are not interested in doing research, because they have no idea about it and no mechanism to grow their research capabilities (Lec 2: L.27-28).*

Many participants described the barriers that currently exist in using evidence-based practice in terms of: conducting research in healthcare, dissemination of research findings, and application of research findings. The most important issues concerned the complex process of obtaining approval from authorities to conduct research, and secondly, barriers to implementing research findings:

> *There are some barriers because there is no mechanism or plan to introduce any new things in clinical settings without getting the approval from the Ministry of Health (Lec 2: L.12-15).*

> *Another barrier is getting ethical and administrative approval for conducting research here (in government health institutions). It's a very complex and time-consuming process. This should be flexible and convenient for the researcher (Lec 3: L.47-50).*

> *One thing is the hierarchy of medical doctors. To do research our nurses have to go through their ethical and administrative review committees, and this takes a long time to get approval (Lec 4: L.270-272).*

> *Here, doctors make all decisions about patient care; even though we do have good evidence to implement something, but we have to get approval from medical doctors. For example, the surgeon decides how to dress wounds (Lec 2: L.33-36).*

An administrator, nurse manager and educators expressed that the heavy workload in all nursing service sectors due to severe staff shortages was a major obstacle to implementing evidence-based nursing:

> *We are only doing routine work day by day. No time to do research; even to have a look at a research paper (Adm 1: L.581-583).*

> *I think mainly our heavy workload is the major barrier for most things. I cannot think of anything other than doing my routine work. I am the only person doing a huge range of duties ... haven't a chance to look at students (NM 1: L.590-593).*

> *Our nurses' workload is heavy with acute shortage (of nurses); one nurse has to look at more than 100 patients in some wards. That's the problem for nurses to put their knowledge into practice and conduct research (Lec 4: L.294-297).*

> *Some nurses have to work an extra duty sometimes more than 24 hours continually, only half hour rest for meal. How they perform well in clinical setting…. I'm afraid how they think about patients even they haven't chance to look after their own health (Con 2: L.304-307).*

> *You know we are prepared to conduct research; we don't have enough time to do it. We are always busy with work. You know I have around 100 students (Tu 1: L.578-580).*

Several participants pointed out that inadequate facilities and resources are the major problems in acquiring and disseminating research knowledge. Some participants also believed that poor working conditions and a lack of support from doctors discourage nurses to acquire research-based practice knowledge:

> *We don't have sufficient library facilities…we can't access recent books and journals (Lec 2: L.21-22).*

> *Unfortunately, we don't have a chance to look at our research that is already conducted by our colleagues because there is no way to disseminate research findings. We don't have a journal yet (Tu 1: L.596-598).*

> *One barrier is language. All research papers are published in the English language (Lec1: L.25-26).*

> *Another thing is lack of support from medical staff. They are the prominent people. They don't like to provide any support for nursing research. I don't know what the reason is (Lec 6: L.308-310).*

> *I mean they (nurses) haven't proper working conditions, resources, and heavy workload (Lec 6: l.292-293).*

> *Infrastructure facilities for practice are also problematic because we're in a developing country. The government is trying to reduce health expenditure that directly affects nurses' working conditions; I mean it's very poor working conditions (Lec 5: L.298-301).*

Some participants recommended incorporating evidence-based practice concepts into the nursing curricula:

> *Even in our program (Post RN BScN), we only cover basic research training. In the future, undergraduate nursing curricula should have this component adequately covered (Con 1: L.280-282).*

> *When we restructure our curriculum, we will integrate theory, practice and research, and we decided that we will introduce evidence-based practice in our curriculum (Lec 1: L.9-11).*

In conclusion, inadequate educational preparation and lack of a supportive environment are compromising the aim of attaining evidence-based nursing practice. Participants expressed the view that conducting research in healthcare could not be carried out due to: complex and delayed approval process by the relevant authorities; inadequate resources and support; language barriers and lack of journals with which to disseminate research findings; and heavy workloads, poor work conditions and inadequate inter-professional relationship making the application of research findings virtually impossible. The best strategy to overcome these problems is to incorporate evidence-based practice concepts into the nursing curricula.

6.1.4 Ethical and legal framework

Most participants identified the importance of having an ethical and legal framework for the nursing profession. They identified limitations here and its impact on the profession and patient care outcomes. Many participants recommended the establishment of a Sri Lanka Nursing Council, which had been first proposed in 1988 but for various reasons, has not yet occurred.

Most participants pointed to inadequate legal and administrative control of the nursing service (lack of a nursing council and nursing constitution) and national competency standards. They also emphasised the applicability of international guidelines (especially from the International Council of Nurses [ICN]) in Sri Lanka:

Our standards of practice are technically managed by Sri Lanka Medical Council, but we don't have a national competency standard yet...just following our manual and others countries' guidelines. How can we think about professional nursing without a nursing council? (Adm 1: L.612-616).

We use ICN code of ethics and code of conduct because we still don't have a separate nursing council and can't set the standards of practice. Our leaders have tried to do that several times, but failed. It's an urgent need (Lec1: L.53-56).

In case of nursing standards, we currently follow ICN guidelines, but there are no nursing standards in Sri Lanka that are relevant to our cultural context (Lec 4: L.273-275).

JICA (Japan International Cooperation Agency) tried to develop standards of practice with the establishment of the National School of Nursing, but it wasn't acted upon (Lec 3; L.57-59).

You know our nursing constitution (administrative guideline) is too old. It should be changed to get recognition for new graduates (CNI 2: L.1268-1270).

This situation severely compromises the quality of nursing services and patient care:

Not having a separate nursing council makes a huge impact on our service and education. The Minister (for Health) decides to recruit large numbers of students without considering capacity and resources of schools. They have only a political agenda and they ignore the quality of the service (Adm 2: L.1020-1024).

I found a lack of written guidelines in clinical wards. Most are verbal instructions. It's sometimes confusing.... we always try to negotiate with doctors but fail (CNI 1: L.624-626).

Lack of such competency directly influences patient care. Some of them (nurses) panic in some situations like cardiac arrest (NM 1: L.621-623).

Most participants suggested establishing an enforceable ethical and legal framework for nursing in Sri Lanka and emphasised the urgent need for a Nursing Council. Some participants further recommended establishing renewal licensure systems for nursing to continually update and keep relevant nurses' knowledge and skills:

Sri Lanka Medical Council is no longer effective in maintaining nursing standards. We need a separate nursing council (Tu 9: L.832-833).

We need to develop our own standards because we know what is needed for (nursing). Currently, no nurses are represented by the Sri Lanka

> *Medical Council, which is mainly dominated by doctors (Lec 4: L.345-347).*

> *In other countries, nurses need to renew their registration each year after completing their educational program. But we don't have such system. This affects our continuing education negatively (Lec 4: L.348-350).*

> *If we need to improve our service we have to think of practice renewal because knowledge and skills should be updated (Tu 1: L.632-634).*

> *We need a solid legal and ethical framework; it should not be just a duty list. Even when we have this framework, we still need our own ethics as professionals (Tu 11: L.852-854).*

In summary, the current ethical and legal framework for nursing in Sri Lanka is not sufficient and is leading to poor nursing services and patient care outcomes. The most preferred option to overcome this problem was to create a Sri Lanka Nursing Council.

6.1.5 Professional roles

Most participants argued that the care giver role is prominent in nursing while other roles such as communicator, coordinator, educator and researcher should be integrated into the profession because they are important. Most participants commented that the care giver role is the major one that nurses should practice because the relevant authorities and healthcare consumers expect them to carry it out:

> *Nurses should be good caregivers because our nurses are expected to provide this role as directed by the Ministry of Health. I also think it's the major role in healthcare. Our people (healthcare consumers) are expecting the caregiver role more than the other roles such as educator or researcher. But in some clinical areas (clinics and community) the educator role is important (Lec 2: L.68-73).*

> *Currently, the care giver role is the most prominent but we also play advocator and educator roles (Tu 6: 636-637).*

> *I think we are mainly providing patient care coordination but we (nurses) or others don't recognise it. Our nurses provide a huge range of care from the lower level to advanced level and coordinate all patient care. This is because we don't have second level nurses (Tu 14: L.638-642).*

Although the care giver role is the major nursing role, most participants suggested that improving communication is important because the way it currently occurs is criticised by the public. In addition, most participants suggested that the researcher

role should be integrated into the nursing service, and this will assist greatly in establishing evidence-based practice in Sri Lanka:

> *A nurse should be a good communicator, because we already have a negative public image; mostly we're criticised as nurses don't know how to talk people. We should have a common sense of how to approach people (Tu 10: L.869-872).*

> *We're having a problem with communication abilities as it is openly criticised by the public. A nurse should be an effective communicator and advocator (NM 3: L.1046-1048).*

> *…communication skills should be integrated into our curriculum as both parts (research and communication courses) are currently lacking. Nurses should be good communicators. This role is the key to building our image (Tu 12: L.1281-1284).*

> *If we need to implement evidence-based practice in Sri Lanka, firstly research courses should be included in nursing curriculum. I suppose the researcher role should be more emphasised in the future (Tu 14: L.1277-1280).*

A nurse manager suggested implementing a clinical nurse or nurse consultant role in clinical settings to improve patient care outcomes and student supervision. A nurse educator also suggested a similar role that could be carried out by educators:

> *Our system should have a clinical nurse or consultant who can manage patients as well as teach students (NM 1: L.594-595).*

> *We need a new role for nursing educators. They should have a clinical role in addition to teaching. I mean academics should play a dual role. Currently, our educators do not use the clinical role effectively (Tu 10: L.834-837).*

One participant argued that the educator role is not only for educators but should also become an integral part of nurses' work as it will lead to better patient care outcomes:

> *I think we need to think about the educator role in nursing. Nurses should provide patient teaching appropriately. It will improve patient care (Tu 15: L.1274-1276).*

Several participants highlighted the need for more specialised roles including the community health nurse and mentor role for clinical services:

We also need to incorporate an advanced practice role. I mean we need a specialised nursing role, for example mental health nurses, maternity nurses… (Tu 10: L.846-848).

What I think is that the authorities have to make a policy decision to implement community health nursing that will reduce the workload of hospital nurses. Some patients can be discharged early by having referring to CHN (Lec 4: L.317-320).

I would like to suggest implementing a ward mentor role enabling support for new nurses and students. It will be more benefit for improving our service (NM 3: L.1059-1061).

Furthermore, some participants suggested nurses should acquire independent and culturally relevant professional roles. An administrator explained this type of model with reference to Japan:

I believe students should be encouraged to develop their own model of practice at the end of their program. Then they can work autonomously (Tu 9: L.843-845).

I would suggest getting some ideas from Japan. Students should develop their own model for practice and it should be declared at the end of their program … giving their pledge. It means they are independent and use their personal model and role to practice in their cultural context. But what we use is developed from Western countries' ideas that might not be directly relevant to our country (Adm 2: L.1039-1045).

The cultural implications of having a more professional role were considered by some participants. They explained that the success of having a professional role depends on cultural relevancy and inter-professional relationships. One participant stated that the professional roles of female nurses as they currently stand are being hampered by social and familial expectations:

However, some professional roles are only practicable with teamwork with other professionals, especially nurses' patient care coordinator role (Lec 1: L.77-79).

I think the most important thing is that professional roles should be culturally relevant (Lec 2: L.88-89).

I think some cultural barriers affect our professional nursing. Our society's expectations affects females as they have to care for the whole family … no time to commit any professional development, because they have to give priority to their family life (Lec 2: 80-84).

In summary, the participants revealed that while the care giver role is most prominent for nurses in Sri Lanka, communicator and research roles need a greater emphasis. Furthermore, a majority of participants suggested that new professional roles such as clinical consultant, mentor and community health nurse should be implemented. However, it is argued that nurses should develop their own model in order to create an independent and culturally relevant professional role.

6.2 Skills

'Skills' is a major concept and one of the three pillars of the draft conceptual framework, and it encompassed the pre-defined sub-skills such as technical skills, communication skills, critical thinking skills, leadership skills and information literacy. A new sub-theme - interpersonal skill – emerged from the focus group discussion. The following sub themes were explored under the concept of skills.

6.2.1 Technical skills vs. clinical skills

6.2.2 Communication skills

6.2.3 Critical thinking skills

6.2.4 Leadership skills

6.2.5 Information literacy

6.2.6 Interpersonal skills

6.2.1 Technical skills vs. clinical skills

Most participants expressed the view that technical skills are an essential element of clinical skills. However, some argued that both terms (technical and clinical) express the practical skills of nursing:

> *I think the term clinical skill is the right phrase that includes technical skills (Lec 4: L.360-361).*

> *Clinical nursing skills include a wide range of skills including technical aspect of care (Con 1: L.362-363).*

> *I think nurses use clinical skills other than technical skills. Cannot clearly separate but technical parts are included in clinical skills (Adm 1: L.652-654).*

> *I think technical skills can be considered as part of clinical skills as well as a separate skill (S Tu 3: L.1286-1287).*

I don't think it's a big difference whether it's labelled technical or clinical skills (Adm 2: L.1063-1064).

I think whatever the name is used nursing skills are important (Tu 10: L.882-883).

According to some participants, technical skills refer to the ability of handling medical equipment and nurses can use these skills to use medical equipment properly. They should also be trained in how to repair minor faults in medical equipment when technicians are not available:

I think our nurses should have some skills like machinery skills to repair minor faults of clinical instruments; at least they (nurses) should know the function of the instrument (Adm 2: L.1065-1067).

In technical skills, nurses should have reasonable skills to handle and manage medical equipment and sometimes to repair minor faults as our technicians are not regularly visiting some hospitals (Tu 8: L.884-887).

Several participants stressed that nurses' clinical skills was not adequate in some situations, for example natural disasters and large-scale accidents:

I guess most healthcare workers including nurses failed to provide even basic life support in an emergency situation. If they were adequately prepared with these skills most of the tsunami victims would have survived. Unfortunately, even after this incident no one focuses on this problem in healthcare (S Tu 2: L.1078-1082).

I believe we should have these skills to handle emergency situations because we're always facing horrible incidents like bomb blasts, floods and large accidents (NM 3: L.1084-1087).

However, one participant put forward the view that nurses were not allowed to use some skills even though they were fully trained:

In my unit (Intensive Care Unit - ICU), nurses' skills are better than new doctors as they (nurses) are more experienced than doctors. But nurses have no authority do some intervention without doctors' orders. Even ICU nurse are fully trained to insert ET tube (Endotracheal tube) in an emergency situation, but they have to wait until the doctor comes to the ICU (NM 3: L.1070-1075).

Several participants suggested recommendations for improving clinical skills, including a balance between theory and practice in such a way that it would incorporate and promote advanced practice skills:

> *Our students have more theoretical input than diploma students, but we need to consider more practical (clinical) skills. It's really important to maintain a balance of theory and practice. But it's very difficult at the time due to limited resources (Lec 1: L.109-112).*

> *Clinical skills should be specialised to improve advanced practice. Need to get wide range of experience in relevant field for a long period with education (Tu 8: L.897-899).*

> *I would suggest including physical assessment skills into our curriculum, as it seems really important in clinical assessment (CNI 2: L.1293-1294).*

In summary, although technical skills are very much linked to the mechanical aspects of nursing, according to the participants it was most important that nurses had both clinical and technical skills to use in practice. In some cases nurses are not adequately trained to use these skills and when they have been trained in them, their skills are seriously underutilised.

6.2.2 Communication skills

Communication skills formed an important part of the professional role, but the communicator role should be developed in order to improve the general public's perception of nursing as being professional. This concept has been previously touched on in Section 6.1.5, Professional roles. Many participants suggested incorporating communication skills into the nursing curricula, as follows:

> *Nurses are not motivated to use effective communication skills. In practical situations most nurses direct patients to doctors to clarify their problems without talking, even if it is a simple one (Con 1: L.381-383).*

> *Nurses haven't enough confidence to provide information or they neglect the importance of communication (Lec 4: L.384-385).*

> *Understanding communication skills are really important; mostly we advise patients rather than listen to them (RN 1: L.888-889).*

6.2.3 Critical thinking skills

Critical thinking (CT) skills are considered to be a major skill of nursing and provide the basis for effective clinical decision-making. Many participants commented on the current use of CT in their programs. They identified CT skills as already being incorporated into a Bachelor of Nursing. One participant explained the current use of CT skills in nursing diploma programs:

We introduced critical thinking skills (CT) for new students that they have to develop in their career (Lec 1: L.95-96).

We identified CT skills as an important part of our program. We're promoting it (Lec 2: L.98-99).

We are following traditional procedural ways without using creative thinking. We should incorporate CT skills into our programs (Tu 14: L.1288-1289).

In contrast, however, one participant emphasised that the current healthcare environment in Sri Lanka does not provide much scope for improving nurses' CT skills in the clinical setting:

Our healthcare environment does not encourage nurses to use critical thinking skills because all decisions are made by doctors (Tu 9: L.890-891).

Most participants believed that CT skills are the basis for effective clinical decision-making in nursing:

I think CT skills mean better decision-making in the clinical setting (Con 2: L.364-365).

Nurse should have good knowledge, skills and self confidence for clinical decision-making. I believe CT skills are the foundation (Tu 11: L.894-896).

I suppose there is a good connection with critical thinking skills and clinical skills. I firmly believe effective clinical decision-making is based on CT skills (Adm 2: L.1088-1090).

Building on these assumptions, several participants suggested that self-directed learning, group work and assignments can play a significant role in improving nursing students' CT skills:

I think self-directed learning will improve CT skills (Lec 2: L.97).

We want to use methods that could be used to improve CT skills, for example, group discussion, reflective practice… (Lec 1: L.102-103).

In our program, students are encouraged to use CT skills using assignments and group work (Lec 4: L.366-367).

It can be concluded that university nursing education has already incorporated CT skills. However, it was also apparent that the university educators dominated this

discussion on CT skills, and educators from the Nursing Diploma program (tutors) were silent on this issue. It is fairly clear that CT is not currently part of the Diploma program. Group work, assignments and self-directed learning are some strategies that could be used to increase the CT component of both Bachelor and Diploma curricula to improve students' CT skills.

6.2.4 Leadership skills

Suggestions were put forward on the theme of leadership skills. Participants from the university sector said that these particular skills were already integrated into their programs:

> *We also have a leadership skills program under management in the nursing course (Lec 1: L.113-114).*

> *We're focusing on developing leadership and management skills in our program (Lec 4: L.368-369).*

Some participants described the current use and constraints of leadership skills in the nursing profession. They suggested that incorporating leadership skills into nursing curricula must be given more prominence:

> *Currently, our leadership in healthcare is problematic because we don't have knowledgeable leaders. I think leadership skills should be added to our basic curriculum (S Tu 1: L.855-858).*

> *One thing is lack of role models in the clinical setting as leaders. We have already identified this weakness and we address this issue in our leadership-training program (Lec 1: L.117-119).*

> *I think leadership skills are important in the clinical settings and also in the community, and need to be addressed in our education (Tu 14: L.1288-1289).*

In conclusion, the current leadership skills of nurses were problematic due to inadequate educational preparation. Leadership skills must be better integrated into the nursing curricula.

6.2.5 Information literacy

Information literacy was a new and unfamiliar concept to most participants as it is not part of the education and practice of nurses in Sri Lanka. Following the researcher's explanation of the term information literacy, most participants expressed

their views on its current usage, problems, and they offered suggestions for improving information literacy. Several people explained the current state of nurses' information literacy skills:

> *We actually don't know how to find new information, we have never heard the term 'information literacy', but now I think it is good idea to incorporate it into our curriculum (Tu 11: L.900-902).*

> *We currently don't have any program that provides skills on information literacy but we need to consider it (S Tu 2: L.1095-1096).*

> *In private hospitals nurses have a chance to use computers and search for healthcare information. But in the government sector, nurses are not using them even though facilities are available (Lec 1: L.131-133).*

In Sri Lanka, graduate nurses utilise information literacy when they undertake a research project. However, this skill in the clinical setting is problematic due to limited resources. Several participants commented on the lack of computers with high speed Internet browsing, and limited access to research databases:

> *Only graduate nurses are trained to use information literacy. However, they cannot improve their knowledge in clinical settings due to lack of resources and direction. Fortunately, we can access databases from here (university), but only a few. In schools of nursing (Diploma program), they don't have any access to those databases (Lec 4: L.395-397).*

> *However, Internet browsing is sometimes very difficult because it's very slow; we don't have broadband. Even when we use it we don't have much access to databases or electronic journals (Lec 2: L.136-138).*

It can be concluded that information literacy in the nursing services and education sector is not well understood or used due to inadequate educational preparation and resources. The integration of information literacy skills into the nursing curricula must be pursued and resources provided.

6.2.6 Interpersonal skills

Several participants identified that interpersonal skills will contribute to the development of previously learned and identified skills:

> *I think nurses have to develop their own interpersonal skills to improve the confidence of nurses (Lec 4: L.379-380).*

> *Nurses should have interpersonal skills because most of them don't know how to approach and manage a program (Tu 4: L.658-60).*

If we make nurses care coordinators they should have all of the skills with some sort of personal skills. I mean it looks like a comprehensive skill (Tu 5: L.655-657).

We need to develop our own skills. We have to use these skills and finally we will have our own set of skills or competencies. I think it is the ultimate goal of the carer (Tu 6: L.661-664).

I believe the skills are really important and interdependent. Our nurses today require all round knowledge and skills if we want to survive as professionals in the future (NM 3: L.1091-1094).

Interpersonal skills are about how people relate to and communicate with each other, and in this context they are important in enabling nurses to develop as well-rounded people. Through interpersonal skills, nurses can learn how to be leaders and mentors in their profession.

6.3 Knowledge

Knowledge is a major pillar of the draft conceptual framework, and was discussed according to the following pre-defined sub-concepts: physiological knowledge, psychological knowledge, environmental knowledge, socio-cultural knowledge, and politico-economic knowledge. The concept of knowledge, however, was the least discussed in comparison to the other major concepts. It was evident that most participants discussed some sub-concepts and facts interchangeably under the concepts of knowledge and clients (i.e. knowledge areas and a holistic approach to clients' health). Following the focus group discussion, legal and ethical knowledge and nursing knowledge also emerged and replaced the concept of environmental knowledge from the draft conceptual framework, which was removed due to the absence of data. The following sub-themes were explored under the overarching knowledge theme:

6.3.1 Physiological knowledge

6.3.2 Psychological knowledge

6.3.3 Socio-cultural knowledge

6.3.4 Politico-economic knowledge

6.3.5 Legal and ethical knowledge

6.3.6 Nursing knowledge

6.3.1 Physiological knowledge

Several participants expressed their views on the amount of physiological knowledge in their programs. The medical sciences are the major sources of physiological knowledge for nursing, and traditionally most nursing programs were heavily influenced by medical sciences:

> *Our program is heavily focused on physiological knowledge because we're in a medical faculty. I think we're mostly using knowledge from medical sciences (Lec 3: L.156-158).*

> *…our nurses' main consideration is physiological knowledge rather than other knowledge as they're mainly doing physical care for the patients (Adm 2: L.1111-1113).*

> *Nurses should have advanced physiological knowledge because they're involved in a huge range of care. In our program, students have to follow Anatomy and Physiology courses with medical students (Lec 2: L.200-203).*

The participants revealed that physiological knowledge for nursing is a major knowledge area due to its practical and important application to patient care.

6.3.2 Psychological knowledge

Several participants identified psychological care as a major part of holistic patient care:

> *Students should have psychological knowledge in order to understand their patients and themselves. Psychology is one subject in the first year (Lec 1: L.204-206).*

> *If we consider the holistic approach of caring, psychological aspect should be a major part. Most of our clients need psychological care as well as physical care (Tu 11; L.926-928).*

> *I think psychological aspects of care are really important. I don't think current courses are adequate or practically useful such as knowledge of patient care (Tu 6: L.683-685).*

Psychological care was also discussed in the sub-theme of clients in regard to the holistic care approach. In order to understand the nature and behaviour of people, it is important to comprehend psychological aspects of knowledge. However, in the current educational preparation of nurses, they lack training in how to initiate psychological care of patients.

6.3.3 Socio-cultural knowledge

In talking about socio-cultural knowledge, especially focusing on language as a medium of communication, professional recognition by the public, and education, participants offered the following opinions:

> *I think our nurses are encouraged to use multi-languages as we are in a multicultural society. When a patient transferred from Jaffna hospital (where most people speak Tamil) to Colombo (where most people speak Sinhala), nurses working in Colombo hospital don't know the patient's language and it gets difficult for both (Lec 4: L.418-423).*

> *I think we should add language knowledge to our curriculum as it seems very important. We use the English language for all written communication but less orally. Language sometimes makes a big difference, you know doctors mostly use English in all aspects, and the public recognises it as a white collar job (Tu 10: L.904-908).*

> *Language is a huge barrier for further education and foreign jobs and everything. Ability to speak English is highly recognised by our society (Tu 8: L.910-912).*

One participant argued that Western knowledge systems must take into account Sri Lanka's cultural and social history and traditions, and recommended that these should be used in partnership with more traditional healthcare interventions in Sri Lanka:

> *We mostly use imported knowledge from Western countries without considering our cultural and social context. I mean we have to consider our traditional methods (of healthcare) that are more suitable to practice here. For example, we used to do herbal oil with massage for fractures instead of using plaster of paris, because that doesn't require physiotherapy after healing the fracture. I think culturally appropriate knowledge is really important in any sector (Lec 4: L.504-512).*

One participant suggested that nurses should be educated to acquire social knowledge:

> *I firmly believe that our nursing education should focus on public, social education (social skills and knowledge) because it is currently lacking (S Tu 2: L.1188-1189).*

In conclusion, social and cultural knowledge are important sources of knowledge in the context of planning culturally and socially appropriate healthcare interventions.

6.3.4 Politico-economic knowledge

Discussions about politico-economic knowledge centred on the political power of trade unions and nursing representative groups. Furthermore, several participants expressed their view about this in the context of economic aspects of patient care:

> *Even though we have very powerful trade unions they don't use such power politically to improve our service. They have personal agendas (Lec 5: L.519-521).*

> *We have very powerful trade unions but we failed to establish our nursing council and nursing department within the Department of Health Services. We need such knowledge but also need to know how to implement that knowledge (NM 3: L.1114-1117).*

> *It's worth to add economic aspects of client care. If we think about holistic care, we have to consider patients' economic needs to fulfil care, because we're in a developing country where the poorest live (CN1 2: L.1308-1311).*

It was apparent that there is a disconnection between the goals and aims of nursing trade unions and the nurses themselves. Nurses are concerned that trade unions use their political power to further their own interests rather than those of nurses in the context of the economic realities of healthcare provision in a developing country.

6.3.5 Legal and ethical knowledge

Most participants emphasised that legal and ethical knowledge should be integrated into the nursing curricula as it is currently lacking. It was reasoned that such legal and ethical knowledge would contribute to Sri Lanka's nursing profession developing a more sophisticated and accountable policy development system for healthcare, and lead to a better understanding of rules and regulations regarding administrative services and practices:

> *I think our nurses need to have legal knowledge but that's currently lacking (Tu 15: L.1300-1301).*

> *Political and legal knowledge need to be incorporated into our curricula as it seems important in the current context. If we have such knowledge we can be actively involved at the policy-making level, which is seriously lacking (Con 2: L.515-518).*

> *I want to clarify the legal knowledge requirements for nurses. Our nurses are not adequately knowledgeable on this aspect as they have to ask someone to clarify some rule and regulation. I think legal knowledge*

should be encompassed with rules and regulations and ethical aspects of healthcare (Tu 13: L.1302-1306).

I think it is worth to add legal and ethical knowledge in addition to your list because nurses should be aware about the legal aspects of care because our consumers will be more knowledgeable (Tu 1: L.731-734).

In the context of consumers becoming more educated about their rights and what they expect from nursing services, such knowledge would also contributed to the provision of legally and ethically acceptable high quality care. Nurses' current legal and ethical knowledge is seriously lacking due to inadequate education preparation.

6.3.6 Nursing knowledge

Nursing knowledge was a new sub-theme that emerged from the focus group discussion. Several participants argued that nursing knowledge is unique but others disagreed:

I think you have to add nursing knowledge because it is the major knowledge we should have (Tu 4: L.735-736).

In my view nursing knowledge is unique. It is a discipline; even though we get some knowledge from other disciplines, we already have unique knowledge (Tu 3: L.735-736).

No! I think nursing knowledge is a secondary knowledge, but the root is those basic knowledge areas. Your listed sub-concepts are the foundation of any healthcare discipline (Tu 6: L.740-742).

I guess our nursing knowledge is based on that fundamental knowledge. Some may argue nursing knowledge is unique (Adm 2: L.1118-1120).

Clearly, there was some disagreement about whether nursing knowledge could be considered as unique compared to the pre-defined areas of knowledge in healthcare, such as physiology and psychology that were discussed previously.

6.4 Values and beliefs (Attitudes)

Values and beliefs form one of the pillars of the draft conceptual framework and they included pre-defined sub-concepts of client, students, health and environment. These themes were further divided into several sub-themes and were explored as part of the overarching concept of values and beliefs.

6.4.1 Client

The values and beliefs of the client were described as being part of the holistic view of the client and the client's rights. The term client referred to the patient or healthcare consumer.

6.4.1.1 Holistic view of client care

The client was described by many participants in broader terms than the physiological, psychological, spiritual, socio-cultural and economic aspects of care. Several participants emphasised the importance of valuing the holistic approach and explained the current use of the holistic approach in healthcare:

> *I guess holism includes all the aspects you mentioned. You can't eliminate any part you listed here (Lec 2: L.143-144).*

> *We should value the holistic approach when we're considering our clients (Lec 4: L.411-412).*

> *Patients are first is just a slogan. Most don't see a patient as a human being. Our system needs to improve the holistic approach to patient care, which is really important in today and future (Tu 8: L.865-868).*

One participant put forward the notion that nurses should consider social aspects of care as most people are socially vulnerable. These people have many other concerns apart from expecting physical care:

> *I think our vision should be based on holistic care. We can't consider them (patients) as just a case. Even we do our best for physical care they may not be satisfied, because they may have another concern or need. I*

remember, one patient told me he needed to go home as soon as possible as his wife and kids were at home alone, because someone could come and rape his wife or abduct his kids. They were living in a terrorist controlled area (Adm 2: L.1049-1056).

The holistic view of client care focused on the economic aspects of care because Sri Lanka is a country where most people live in poverty. Although all Sri Lankans enjoy free healthcare there is a concern that most people must wait a long time before they receive it:

I think it is better to address the economic aspects of clients because our clients are poor. They have to wait a long time to get treatment in government hospitals as most are heavily crowded. They can't afford it (long waiting) because it affects their daily incomes (Lec 4: L.407-410).

Most patients are very poor and get upset with their illness, because it affects their income and family matters. We need to make every effort to send them back to family life soon (RN 1: L.920-922).

Statements were expressed about the positive role played by Buddhism in assisting the spiritual needs of clients:

Spiritual aspects of clients are also important when we consider their end life stage. As a Buddhist country we value spiritual care for patients (Con 1: L.415-417).

Spiritual need is really important for us as we mostly hold Buddhist beliefs (Lec 1: L.145-146).

Spiritual needs should also be considered because our society holds spiritual values as most are Buddhist (Tu 14: L.1312-1313).

Several participants commented that cultural aspects of care do not make it possible for them to maintain relationship with clients. Multicultural values should be addressed in the nursing curricula:

You know, we usually don't touch patients except in direct care, it's our culture, but human touch is the best intervention for care (Tu 7: L.917-919).

You know, we're not allowed to be very close to patients. We can't sit with them, it's a common practice, but it blocks maintaining a good relationship. These things should be changed (NM 2: L.923-925).

We are living in a multicultural society; therefore multicultural values are important to integrate into our curriculum (Lec 6: L.413-414).

Participants confirmed that the holistic view of client care should be incorporated into nursing, thus enabling nurses to provide comprehensive care for people. Holistic care means focusing on the socio-cultural, economic and spiritual aspects of care. While holistic care was recognised as an important goal, it was apparent that the actual provision of holistic care by nurses in Sri Lanka does have some barriers to overcome.

6.4.1.2 Clients' rights

Most participants were concerned about clients' rights, commenting that most healthcare workers were unaware of, or neglected, clients' rights despite the strategies adopted to ensure patient rights in healthcare:

> *... we hold a basic and fundamental value that patients are the most important person of the hospital, but in practice it is not true (Tu 11: L.914-916).*

> *Patients' rights have severely deteriorated in patient care wards. We must think about it. Unfortunately, our patients are powerless. No one complains about nurses or doctors (Tu 8: L.849-851).*

> *All workers should recognise the patients' rights, but most of them are unaware about that (NM 1: L.674-675).*

> *I don't know about any association working towards patients' rights, but you know we have lot of trade unions. No one talks about patients' rights or satisfaction (Tu 12: L.1354-1356).*

Most believed that the consumer of healthcare should be treated ethically, morally and legally without any discrimination. Most healthcare institutions recognise patients' rights and several international guidelines were available on this subject:

> *We have the ultimate responsibility to care ethically, morally and legally for all patients without any discrimination (Adm 1: L.669-670).*

> *Our major aim is to care for patients. We should adhere to the slogan that we're always there for you as ICN described (Adm 2: L.1131-1133).*

> *All clients should be treated fairly, respect them, protect privacy, and right to get equal treatment without any discrimination. We already endorsed patient rights in our hospital system. Patient rights, Nightingale oath, and ICN Code of Ethics provide guidance regarding what values we have regarding our clients (Adm 1: L.676-681).*

It was also indicated that patients and their family members should be involved in care planning. In Sri Lanka, traditionally, most patients make healthcare decisions with their family involvement:

> *Nursing care should be based on a patient oriented approach; I mean they should have a chance to be involved in their care (Tu 4: L.671-673).*

> *I think patients should be involved in care planning. It's the real meaning of patient centred care (S Tu 2: L.1134-1135).*

> *Patients' families and relatives are important when we're planning care, but they are mostly neglected. Because they are not going to ask questions, it's our culture but we should take heed that our patients are not independently making decisions on their treatment and mostly do it with family (NM 3: L.1159-1163).*

In summary, clients' rights in healthcare context were not being upheld due to inadequate attention of healthcare workers and because most patients and relatives were not actively being involved in care planning. However, it was expressed that the patient is the focus of healthcare, and their rights should not be compromised.

6.4.2 Student

The values and beliefs in regard to the student involved being self motivated and self directed. The student was the focus in the education context.

6.4.2.1 Self-motivated /self-directed students

Most participants thought that students should be self-motivated and self-directed individuals:

> *Students are de-motivated sometimes, when they come to the university, as they have to start their education in English and face many difficulties (Lec 1: L.151-153).*

> *Most students come here (Schools of Nursing) with some disappointment because they failed to get a few more marks to enter the medical faculty (Tu 13: L.1226-1227).*

Most participants suggested that students should have several qualities enabling them to become better learners in the nursing profession. Such qualities depend on their social and family backgrounds:

> *Students should have a suitable personality in order to take up this challenging career (Tu 13: L.1328-1329).*

…they (students) should have good coping abilities to adjust to new situations as new university students in a new degree program (Lec 2: L.154-155).

We need to think about student selection; if someone needs to become a nurse, they should have inner resource for caring. Just passing entrance examination alone doesn't meet all the criteria to become a nurse (S Tu 1: L.877-880).

Those who are coming to our profession should have greater commitment and enjoyment in caring for people (S Tu 1: L.932-933).

Students should be self responsible for their development. Internal motivation is really important; what we need to do is recognise their potential need and assist them (S Tu 2: L.1140-1142).

We have to motivate students but self-motivation comes from their inner life. Those who use it can achieve the highest levels (Con 1: L.442-444).

Students should be motivated to internalise their education. I think this is really important for professionals because their work cannot be judged by laws and regulations (NM 1: L.770-773).

However, some participants identified several impediments to self motivation, and suggested resources be made available to remedy these, and to also recognise students' achievements:

Students should be self-motivated but they should be encouraged by providing necessary guidance and resources. But it's very difficult to provide some resources like computers. We also should know how to use available resources (Tu 10: L.937-940).

No mechanism to recognise students' achievements. If their achievements can be valued, they will do something better for the future (S Tu 1: L.944-946).

Most participants recognised that self-directed students desire to become a competent practitioner in any nursing sector:

Self-directed and self-motivated students are our primary aim. We explained it in our curriculum (Lec 1: L.148-149).

Students should be motivated towards self -directed learning while we are facilitating a positive environment (Tu 3: L.688-689).

Our future university programs should be based on the self-directed learning approach, and students should be self directed and self-guided. It will improve critical thinking skills (Tu 14: L.1325-1327).

> *I think self-directed students will have opportunities to improve their knowledge, skills and attitude to become good practitioners in any field: education, management and patient care (Adm 2: L.1035-1038).*

The current social and cultural values are important and relevant. Self-motivation and self-direction are the most important qualities of students who enter the nursing profession. Furthermore, attributes such as interpersonal skills, caring for people and having strong coping abilities are vital.

6.4.3 Health

The values and beliefs concerning health were described in terms of primary healthcare, holism and community health nursing.

6.4.3.1 Primary healthcare (PHC) and Holism

Primary healthcare is an effective model and most participants were aware of it, they described Sri Lanka as having achieved a relatively high health status compared to other Asian countries. It has achieved this high health status by implementing a national health strategy adopted from the primary healthcare model. This primary healthcare model has also served to guide the development of nursing educational programs:

> *…some evidence for the effectiveness of the primary healthcare model in Sri Lanka, because we have achieved relatively high health status compared to other developing countries. It has been long realised by many countries. I believe primary healthcare is the suitable model for us (Lec 2: L.160-164).*

> *I suppose primary healthcare is the best model for developing countries' healthcare. When we achieve this basic level, we can move to a holistic approach as it is mostly used in developed countries (Tu 16: L.1331-1333).*

> *Our national health policy recommends primary healthcare and we achieved relatively good health status comparing other Asian countries. But our people still need a proper healthcare system that meets all needs (Adm 1: L.699—702).*

> *We used primary healthcare concepts as the basis of our community health program (Lec 1: L.165-166).*

Although the primary healthcare program mainly focuses on maternal and child healthcare, the success of this program is limited. For example, pregnant mothers,

and children still experience basic health problems, particularly related to nutrition and potable water in remote communities:

> *Our nutrition status is very bad. 60% of under five-year old children face malnutrition; this figure is the same as in pregnant mothers. This means it is problematic in primary healthcare implementation. Conceptually, it's best but in practice we failed (Tu 4: L.715-719).*

> *Even using primary healthcare for more than two decades our people still need to fulfil basic health needs especially in remote and conflict areas. They don't have enough health facilities - even drinking water (Adm 1: L.711-714).*

Participants criticised the government's resource allocation for the community health sector, suggesting that the current allocation of funding is inadequate to service all community health needs and was overly focussed on acute healthcare at the expense of community programs:

> *I can point out some weaknesses in the current primary healthcare program. Because it only focuses on child and maternal care and ignores other societal problems such as malnutrition, suicide, poison... (Tu 11: L.960-962).*

> *Primary healthcare is the major healthcare concept but you know the government favours hospital sector development. It's evident that allocation of resources for community healthcare is very low compared to hospital fund allocation. This should be changed because prevention is better than cure (NM 3: L.1147-1157).*

> *I think our healthcare management should be changed and we need to implement some things that more effectively address current healthcare needs of the community (Adm 1: L.720.722).*

The primary healthcare model has achieved significant success in improving the health status of people in Sri Lanka. However, there are some areas, especially government resource allocation and policy directions, which need to be improved to fully implement primary healthcare.

6.4.3.2 Community health nursing

Community health nursing services need to be better integrated into primary healthcare. However, the applicability of primary healthcare concepts to the nursing curricula was problematic:

> *Our curricula have not considered the integration of primary healthcare as it is described in many government reports (CNI 2: L.1334-1335).*

… nursing programs should be based on primary healthcare, because it is the government health policy and we know how effective it is (Lec 5: L.467-468).

Most participants recognised the importance of improving community health nursing services. Implementing community health nurses would be a positive step in improving community health services:

… those concepts (primary healthcare and holism) were incorporated into our nursing education, but the problem is applicability in the clinical setting. Even though our national health policy is based on primary healthcare, we still don't have community nurses (Lec 4: L.463-466).

… for more effective primary healthcare, we have to introduce community health nurses who can address all health-related problems in the community. The government has to act immediately to implement this position because they already have a policy decision (Lec 2: L.167-171).

Midwives are doing a good job in community healthcare, but they only consider child and maternal care. Our community faces many health problems and needs someone who can provide comprehensive care to the community. Our national health policy suggested implementing community health nurse (Adm 1: L.703-707).

I think our major problem is lacking basic level nurses in the community. If community health nurses are to be appointed, hospital admissions will be reduced. It will definitely be cost effective (Tu 8: L.954-956).

One participant, however, argued that the community needed a person who could provide a broader range of services regardless of professional focus or expertise:

I believe we need some kind of person who could provide holistic care for the community, I don't care who is appointed (Con 1: L.469-472).

While professional nurses should be employed to improve community health services, it is suggested that people need to be responsible for their own health:

…people must be responsible for their own health. If we do this we can reduce 50% of hospital admissions. We can advise people (patient) to brush their teeth but we can't do it all the time (Con 1: L.473-476).

The participants recommended the implementation of a basic level nursing position in community health services to effectively implement primary healthcare policies.

Furthermore, nursing education programs should adopt primary healthcare concepts to develop their community nursing programs.

6.4.4 Environment

The healthcare environment was described in terms of two sub-themes: healthcare consumers' demands; and technology and medical sciences.

6.4.4.1 Healthcare consumers' demands

The focus group discussions showed that most participants emphasised consumers' demands, current problems and suggestions for improving the healthcare environment so that it became more consumer friendly. Furthermore, most participants identified the rising trend of educated consumers in healthcare:

> *Consumer demands… that's a new idea in our country because our system is currently less adapted to these needs (Tu 6: L.724-725).*

> *Our current consumers are more educated than their counterparts of many years ago. We have to consider this matter and nurses should be more educated (Lec 2: L.175-176).*

> *Even though most are highly literate, health knowledge isn't adequate. I think they are not educated because hospitals are very busy and overcrowded. If they are knowledgeable they may manage most health problems and improve their health (Tu 12: L.1314-1317).*

Several participants expressed their views in regard to the nurses' qualities as expected by consumers.

> *"Nurses should be highly qualified because people are more educated and demand better healthcare (Tu 1: L.726-727).*

> *Most patients believe nurses should be more flexible, kind, supportive and approachable to consumers (Lec 1: L.173-174).*

Several participants suggested improving the patient care environment by providing a more home-like environment, as was evident with some private hospitals. It was also suggested that healthcare management should implement a strategy along these lines:

> *If we think about the patient care environment, it should be the same as their home environment … you know most private hospitals do that. But government hospitals can't afford that. But I think our future program*

> *should adapt this concept to organise the patient environment, considering their demands (Tu 12: L.1342-1346).*

> *Most private hospitals are organised to meet patients' demands. Patients can use most facilities and there is no need to move them to take ECG or some investigations as most can be done within the patient rooms. That's more convenient to the patient and staff. But in government hospitals patients have fewer facilities, sometimes one ECG machine for the whole hospital (Tu 15: L. 1347-1352).*

> *I suggest our healthcare system should be developed using innovative management strategies (Con 1: L.501-502).*

Consumers are becoming more educated about healthcare. However, the healthcare system cannot cope with the rise in consumers' demands. The participants believed that nurses should be more educated, flexible, kind and supportive to consumers. Furthermore, healthcare management should focus on creating consumer-friendly healthcare institutions.

6.4.4.2 Technology and medical sciences

Most participants believe that new technology should be integrated into healthcare and the health sciences. The assimilation of new technology into healthcare would improve patient care outcomes and participants suggested that technology should be culturally and economically appropriate:

> *New technology is really needed, and it needs to be integrated into our practice, no doubt about that (Tu 5: L.728-729).*

> *Our healthcare system should adapt new technology, for example, to keep patient records (in a computerised system); it's more convenient for everyone (Lec 1: L.181-183).*

> *Another problem is they (doctors) order inappropriate high cost investigations (diagnostic), because they have high tech machines. Doctors should apply new technology more appropriately within our cultural and economic context (Lec 2: L.188-192).*

Some participants explained that there is a gap between scientific advances in medicine and nursing, despite the notion of healthcare being a multi-disciplinary activity in which teamwork is essential:

> *Day by day medical sciences go up and up, but we can't see any improvement in nursing (Lec 3: L.185-186).*

> *I think inter-professional relationship is crucially important as we are working in a multi-disciplinary teamwork. We should exchange our knowledge to face future challenges, but you know we are backward when we consider medicine (Adm 2: L.1152-1155).*

A participant emphasised the importance of integrating the traditional system of medicine into healthcare system enabling to provide more culturally friendly patient care environment:

> *Our current system (healthcare) does not address our traditional system of medicine, but people are coming here (the healthcare facility) with these beliefs. Our curricula should be developed to integrate our traditional medicine. Research should also be carried out to find the effectiveness of these interventions (traditional medical interventions) (Lec 4: L.495-500).*

The integration of new technology would contribute to patient care improvement. New technology should be culturally and economically relevant and the advanced medical sciences and the traditional system of medicine should be incorporated into nursing.

6.5 Teaching and learning

Teaching and learning form the foundation of the draft conceptual framework. Teaching and learning involve the acquisition of knowledge, skills and attitudes (values and beliefs) that are essential to the goals of professional nursing. The theme of teaching and learning consist of pre-defined sub-concepts as follows:

6.5.1 Student-centred education

6.5.2 Self-directed/ discovery learning

6.5.3 Interdisciplinary education

6.5.4 Life-long learning

6.5.5 Flexible learning

6.5.6 Educational technology

6.5.7 Nursing education in the future

6.5.1 Student-centred education

Several participants identified that existing nursing education was teacher-centred. This approach was heavily criticised because it lacked creativity in regard to nurses learning new concepts and how to apply their knowledge:

> *… our traditional system of education just follows Jug and Mug theory as teacher teaches and student learns but that needs to be changed. Even our university system still has spoon feeding, but you know here (Open University), we use student-centred methods as we believe it is really important (Lec 4: L.428-432).*

> *Students are not encouraged to ask questions. They usually follow teachers' guidance. No creativity at all! (Tu 10: L.789-791).*

Other participants commented on the student-centred approach as being problematic as well in terms of feasibility and implementation, despite its promotion in various nursing education programs:

> *Conceptually, student-centred education is the best as we put the slogan like client-centred care, but how feasible are these concepts? (Tu 1: L.746-747).*

> *We always talk about student-centred education, but what is the reality? It's just a concept. We should consider this matter and need to put in a practical approach to do it (Tu 13: L.1358-1360).*

Most participants felt that high student numbers constrained the implementation of student-centred teaching and learning strategies. However, one participant suggested the importance of the student-centred approach and teachers' responsibility to contribute to improving this situation:

> *We have to manage big classes - nearly 200 students per class. We can only deliver lectures to teach them (Tu 4: L.748-749).*

> *… we cannot do these things practically with our heavy workload. It's almost impossible to conduct group teaching (Tu 3: L.690-693).*

> *You know, the current student ratio to tutors in schools of nursing is higher than 300. How can they manage more than 300 students per class? Individual supervision is really important for student nurses because they are going to care for human beings (Lec 5: L.528-531).*

> *Student-centred education is important but teachers should have sound knowledge about this concept and implication for practice, otherwise it will not be successful. The curriculum should address this problem because our system is based on teacher-centred education (Lec 1: L210-213).*

It can be concluded that the nursing education system focused too much on the teacher-centred approach. The participants argued that the implementation of

student-centred education was limited due to large classes. However this teaching method could be encouraged in the future if class sizes can be reduced.

6.5.2 Self-directed/ discovery learning

Most participants preferred self-directed/discovery learning in their programs as it will improve students' learning abilities. However, its success is basically dependent on students' abilities and their motivation:

> *Self-directed learning is really important for professional services education as they (students) have to use critical thinking and good decision-making skills (Con 2: L.433-435).*

> *Discovery learning depends on their (students') motivation. Some can only use one textbook to refer to; another student may use several resources to do same thing. I think discovery learning is a creative work (Lec 1: L.230-233).*

> *…we use self-directed learning … all students are aware about that and we have counselling programs to assist students (Lec 4: L.436-437).*

> *We used discovery learning in our community health program where students have to go and find problems and have to solve these problems. But it requires clearly-defined objectives, what they need to do (Lec 1: 223-226).*

There are restrictions on self-directed/discovery learning in nursing education such as time constraints and lack of resources. Lack of resources to access information was considered a major constraint:

> *Self- directed learning requires resources and guidance. We are having problems in providing these things (Tu 3: L.692-693).*

> *There are some limitations in using discovery learning because we don't have much technology (computers, internet) to access information (Lec 2: L.227-229).*

> *We only can get 'The Journal of Advanced Nursing' because funds are only available to buy one journal (Lec 4: L.401-402).*

> *The main thing is limited time for self-directed learning, which requires time-consuming activities. However, we offer counselling sessions for students to adjust to this environment (Lec 4: L.439-441).*

Several participants suggested improving self-directed/discovery learning through commitment and encouragement with necessary guidance. Clearly-defined objectives and guidance are prerequisites for self-directed/discovery learning:

> *We need to develop some education strategies to improve discovery learning. Anyone interested in learning something can use the Internet. Only need to show commitment. As teachers, students should be encouraged to do that (CNI 1: L.757-760).*

> *Our program should be developed to improve students' ability to take up independent learning such as discovery learning. I think we have to offer some flexibility to do that (Tu 13: L.1361-1363).*

> *As we talk, students should be motivated to do discovery or self-directed learning but it should be made sure all resources and guidance are in their hands (S Tu 3: L.1368-1370).*

In summary, it was identified that self-directed/discovery learning should be encouraged and developed further. If the resources are available, self-directed/discovery learning produces better nurses.

6.5.3 Interdisciplinary education

Interdisciplinary education is essential to developing a suitable teaching and learning strategy in nursing education. Participants outlined what they felt to be the problems and how problems could be addressed. Several participants explored the role of interdisciplinary education in nursing diploma and degree programs. The Open University nursing degree program employed lecturers from other disciplines and universities were considered to be the best places to implement interdisciplinary education despite existing problems:

> *We cannot use interdisciplinary learning because the school of nursing is isolated from other disciplines, but when we start the university program, hopefully we can do it (Tu 2: L.750-752).*

> *In our program (at The Open University), we hire lecturers from other disciplines that promote interdisciplinary experience for students. This can easily be done in conventional universities as they have separate faculty or departments, for example, sociology, psychology... (Lec 4: L.532-536).*

> *We're trying to use interdisciplinary education at a basic level. Next year we can use it with pharmacy students. But you know it's very hard to use it, so many problems because this is the first nursing university program,*

but we will do best, as it seems really important because healthcare is teamwork (Lec 2: L.218-222).

Several participants argued that the recent trend of transferring nursing education to the university sector is generating conflict with medical professionals. Those conflicts make it difficult to implement interdisciplinary education among healthcare disciplines:

Unfortunately, our medical doctors are trying to decide nurses' education. It is a really unpleasant situation here. They have no business to decide others' education. We respect all others. Healthcare is not the property of doctors (Lec 6: L.539-542).

You know, Sri Lanka is different. Doctors manage the whole healthcare system. The hidden truth is they don't want to improve others' education (Adm 1: L.754-756).

Several participants explained these conflicts among healthcare professionals in Sri Lanka in terms of: interdisciplinary education in healthcare professionals' education; inter-professional conflicts due to trade union action; and inappropriate basic education goals:

If we use interdisciplinary education, there will be no more conflict among us, but our entire healthcare professionals' education takes place separately (Adm 2: L.1173-1175).

I think many things are involved in the lack of inter-professional relationships, mainly so many union actions, salary differences, recognition... (RN 1: L.862-864).

I'm not happy with our general education system because students haven't the chance to develop social skills, even socialising with peers as they only focus on academic education to become a doctor or an engineer. These are the values our parents have. When they become such a person they will not share, respect or consider others (Adm 2: L.1180-1185).

Interdisciplinary education should be incorporated into healthcare education and that this would reduce the workload of nurse educators:

Fundamentally, patient care is teamwork and the team should be trained and educated in teamwork or through interdisciplinary education (NM 3: L.1177-1179).

I would suggest it is better to incorporate interdisciplinary education into healthcare workers' education; it should be a policy (Con 2: L.537-538).

We're running with a shortage of tutors and therefore we can't teach everything. If we use interdisciplinary education and discovery learning I think we can manage our workload (S Tu 2: L.1170-1172).

In summary, university education was the most appropriate place for establishing interdisciplinary education for healthcare professionals' education. However, implementing it is fraught with difficulty due to professional conflicts among healthcare practitioners. Despite these concerns, interdisciplinary education is a major teaching and learning strategy that must be persevered with.

6.5.4 Life-long learning

Most respondents identified that life-long learning is essential for nurses' continuing and professional development:

Nurses should be life-long learners. Our program already integrates these aspects as major objectives of the program (Lec 4: L.545-547).

All professionals should engage in life-long learning as they need to keep up-to-date (Tu 1: L.449-450).

However there were many concerns about engaging in life-long learning due to a lack of recognition, heavy workload, and inadequate resources:

I think life-long learning is one of the key areas that all professionals have to maintain. But no one recognises it or appreciates it here (Tu 5: L.765-767).

Not sufficient time even to think about further education, as they have to complete a lot of work during their 6- hour (duty shift) (Lec 5: 301-302).

…life-long learning is really a valuable aspect, but requires more resources and the need to change our nurses' attitudes (Lec 4: L.543-544).

Despite the above constraints, many participants suggested that life-long learning is realisable by introducing a renewal licensure system and the active involvement of professional associations:

… first we have to introduce a renewal licensure system. Otherwise they (nurses) will not be interested in doing further education (Lec 10: L.827-829).

We need a solid learning culture; I mean our continuing education should be expanded, and we need professional associations' involvement (Tu 12: L.1373-1375).

It was felt that nurses should be life-long learners regardless of the existing problems regarding their heavy workload and inadequate resources. Establishing a life-long learning culture is recommended and can be made possible through continuing education and introducing a renewal licensure system.

6.5.5 Flexible learning

Flexible learning was a new concept for some participants and after the investigator's explanation of the term (i.e. expansion of choice on what, when, where and how people learn), most participants discussed it in the context of nursing educational programs being based on institutional affiliation with the government. Participants explained that government schools of nursing used highly structured curricula enabling the maintenance of a national level curriculum in all schools.

… it is a highly structured curriculum. That means we cannot introduce new things. We have to follow rules and regulations of the Ministry of Health (Adm 1: L.583-585).

If we need to add something, need to get approval but that is a time-consuming process. That means our curriculum is highly structured (Tu 10: L.786-788).

We cannot apply flexible education as happens in other countries, because we have a different system (of education) (Con 2: L.459-461).

However, the university nursing programs are relatively flexible in comparison with the diploma programs:

The flexibility depends on the context of the program. You know, schools of nursing use highly structured programs as they need to follow government regulations, but university programs are more flexible than schools of nursing programs, but we also have to adhere to university regulations (Lec 4: L.454-457).

Most participants from the university sector expressed the benefits of flexible learning. Distance education and the system of electives are good strategies as they address students' personal commitments and geographical isolation:

> *...we can't provide enough flexibility. We, however, use an elective system that will help students to select subjects and clinical experience in what they wish to do (Lec 2- L.237-239).*

> *Our program delivery method is distance education as we value students being able to select appropriate time (off campus) and load of their work (credit system) (Lec 4: L.446-448).*

> *Students have a chance to postpone their education when personal commitments arise, and they can recommence study at a future date (Lec 6: L.449-451).*

> *Our students come from different parts of the country. They can use this flexibility where they are geographically isolated (Lec 5: L.452-435).*

University nursing programs are more flexible compared with the schools of nursing programs. Flexible learning should be integrated into nursing education as long as education institutions have the administrative capacity to manage and provide it.

6.5.6 Education technology

Most participants discussed education technology in their programs and provided suggestions for its further development. The main problem as education technology stands currently is the lack of resources. A nursing school was able to use education technology through the assistance of Japan International Cooperation Agency (JICA). However, the problem remains that not every school has this capacity:

> *In my previous work place, we used new technology for teaching and learning because it was donated by JICA, but I know other schools don't have such facilities (Lec 3: L.178-180).*

> *We recently received a lap top computer form the Ministry, but we haven't a multimedia projector or Internet connection to utilise it properly. Some schools got only the projector. This looks like jumping using one leg (Adm 1: L.1097-1100).*

Several university sector participants stated that they currently use education technology for teaching and learning. They also suggested that it should be incorporated in nursing education as long as it was culturally and economically appropriate:

> *We always use technological strategies to deliver our program as we use distance education, but we still need to incorporate new educational technology into our system. But it requires more resources (Lec 4: 548-551).*

We use video and interactive learning opportunities for our students. In the future, we will have to use more technology to deliver educational experiences. Most countries use web-based learning but it's difficult to practice here (Sri Lanka). Therefore we have to use culturally and economically appropriate technology to improve education (Lec 1: L.241-246).

Education technology has enormous potential in nursing education but a lack of resources is an ongoing problem.

6.6 Nursing education in the future

Most members suggested that nursing education should have a bachelor nursing degree as the minimum qualification for entering the nursing profession:

It's no argument; nursing education should be based on university education (Lec 6: L.341-342).

We should revise our organisational structure, and should make a decision for the bachelor degree as the minimum qualification. Then we can develop our profession based on this foundation (Tu 14: L.1254-1256).

Several universities are going to establish BSc nursing programs, but there are lot of constraints... But authorities should take necessary steps to implement nursing education in the university sector (Lec 4: L.353-356).

Several members suggested that university nursing education should be guided via a national framework:

I think our university education for nurses should be based on a solid foundation and broader knowledge of nursing and healthcare (Lec 4: L.525-527).

I guess our service faces big challenges in the future if we cannot make wise decisions regarding a national level framework for nursing education, because we will have both diploma and graduate nurses in the future. This transition (diploma to bachelor) should be more flexible (S Tu 3: L.1263-1267).

Nursing education should be university-based and most countries supported the view that bachelor degree education as a minimum preparation for beginning professional nursing practice. Furthermore, nursing education should be based on a national level framework.

Conclusion

The major benefit of using the focus group method was the construction of meaningful findings for the phenomenon under investigation. Group interaction was the most powerful way of producing rich data to address the objectives of the study. After reviewing the findings of the discussion together with evaluation data (observation notes and participants' evaluation forms), it can be concluded that the draft conceptual framework incorporated the most important concepts and features of nursing in Sri Lanka, however, several concepts were not directly applicable due to Sri Lanka's political, social, cultural and economical circumstances. Thus, these concepts need to be further refined so that they reflect the realities of Sri Lanka's social, cultural and economic contexts.

Chapter 7   An evidence-based conceptual framework: discussion

7.1 Introduction

In Sri Lanka, pre-registration nursing education is currently based on a three-year certificate level nursing program in schools of nursing and four-year bachelor programs in nursing at universities. The government policy is that nursing education should be based on the four-year undergraduate nursing program (Ministry of Health 1992; Ministry of Health Nutrition & Welfare 2002; University Grant Commission 2007). In response, the University Grant Commission of Sri Lanka has approved four-year Bachelor of Science in Nursing programs (BScN) in three universities (University Grant Commission 2007). In addition, several other universities including the Open University propose to establish similar programs in the future. In this transitional stage of nursing education, the development of a conceptual framework that uses evidence to underpin undergraduate nursing curricula is a crucially important step to improving nursing education and nursing practice in Sri Lanka. The overall purpose of this study was to develop an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka.

In the process of developing an evidence-based conceptual framework, two systematic reviews revealed that:

1. the evidence regarding the effectiveness and appropriateness of undergraduate nursing curricula models is notably weak due to the paucity of high quality comparative studies and meaningful patient care outcome measures in available studies (Jayasekara *et al.* 2006); and

2. direct application of a curriculum model from one country is not appropriate to another country unless its cultural relevancy is first assessed (Jayasekara & Schultz 2006).

The literature review on conceptual frameworks in nursing curricula revealed the absence of a universally accepted nursing curricula paradigm, and no single approach for developing a conceptual framework for nursing curricula. However, the literature

review identified the theoretical evidence and widely used approaches to developing conceptual frameworks. The literature suggests that the majority of nursing curricula used an eclectic approach to the organisation of conceptual frameworks. Based on this evidence, a series of literature reviews was conducted to document the concepts that should be suited to Sri Lanka leading to the development of a draft conceptual framework. In broad terms, the draft conceptual framework incorporated widely recognised nursing concepts from international and local contexts and reflected the contemporary needs of the nursing profession, and the current and future demands of healthcare. However, these concepts should be assessed on the basis of their cultural and economic relevancy to Sri Lanka (Jayasekara & Schultz 2006). Focus groups were the method of choice for obtaining key stakeholders' views and opinions on the draft conceptual framework because it generates meaningful opinions, suggestions and feedback in a collective context (Krueger & Casey 2000; Madriz 2000; McLafferty 2004; Curtis & Redmond 2007). The triangulation of focus group findings with relevant literature enhances the validity of a study (Clare *et al.* 2002; Halcomb & Andrew 2005; Williamson 2005). Thus, the final step of this process is to triangulate the findings of focus groups and literature reviews, making possible the development of a meaningful, feasible and appropriate conceptual framework for undergraduate nursing curricula in Sri Lanka.

This chapter summarises the key findings of the study. The key findings are presented as accepted and rejected concepts and an as overall conceptual framework. The resulting final conceptual framework is presented graphically. The overall conceptual framework is described in terms of cultural and economic relevancy in Sri Lanka.

7.2 The key findings

The key findings of the study are described in two sections: (1) accepted and rejected concepts regarding the conceptual framework; and (2) the overall conceptual framework. The first section describes the rationale for accepting or rejecting concepts based on the findings of focus groups and literature reviews. At the end of this section the final conceptual framework is presented graphically. The overall conceptual framework is described in terms of cultural and economic relevancy to Sri Lanka.

7.2.1 Accepted and rejected concepts

Several new themes emerged from the narratives of focus group participants in addition to pre-defined concepts. The researcher observed that participants' active interaction was the main reason for developing these new themes.

7.2.1.1 Accepted concepts

The new themes that emerged from the focus group discussions were: meaning of professional nursing in Sri Lanka; technical skills vs. clinical skills; legal and ethical knowledge; nursing knowledge; holistic view of client care; clients' (patients') rights; community health nursing; and nursing education in the future.

7.2.1.1.1 Meaning of professional nursing in Sri Lanka

The majority of participants expressed their views on the status of the Sri Lankan nursing profession and made recommendations to improve it by making the general public more aware of the work that nurses do. Further suggestions included developing professional work and university education for nurses. In addition, this theme focuses on the concepts that should be addressed in professional nursing in Sri Lanka (e.g. holistic approach, evidence-based practice, community health nursing, image building).

7.2.1.1.2 Clinical skills and technical skills

The ability to observe the extent of participants' agreement and disagreement is a unique strength of focus groups (Morgan 1996). The theme of clinical skills and. technical skills emerged from a debate among the participants. The term technical skills was used in the draft conceptual framework to represent the skills that are commonly used to care for patients, as defined by the American Association of College of Nursing (AACN) and Royal College of Nursing (RCN) (AACN 1998; Royal College of Nursing 2004a). However, this definition was not appropriate in Sri Lanka as technical skill is more closely related to the technical aspects of care (e.g. equipment use). However, this theme elaborates on the nature of skills that should be incorporated into clinical nursing practice in Sri Lanka. It is most important that nurses should have both clinical and technical skills.

7.2.1.1.3 Interpersonal skills

During the focus group discussions, several participants identified interpersonal skills as a separate skill that should be integrated into nursing curricula. This skill was considered as an essential skill involved in dealing with and relating to other people. The literature review revealed that interpersonal communication in healthcare is well established (Martin 1998) and problems in this area have been recognised in clinical practice and the education of nurses (Ricketts 1996; Chant, Jenkinson, Randle & Russell 2002). As a result, the teaching of interpersonal skills in nurse education has become a matter of concern to nurse educators (Ashmore & Banks 2004). Interpersonal skills are considered as important social skills that are fundamental to all forms of successful helping relationships (Kagan 1985; Ashmore & Banks 1997). Thus, interpersonal skills were integrated into the conceptual framework.

7.2.1.1.4 Legal and ethical knowledge

Although the legal and ethical framework was a sub-concept of professional nursing, legal and ethical knowledge was not included in the draft conceptual framework. However, this area of knowledge emerged in the participants' narratives. As most participants emphasised, nurses' legal and ethical knowledge is seriously lacking in Sri Lanka due to inadequate educational preparation. Ethical and legal knowledge contributes to the development of nurses' professional status and ensures the protection of patients, practice, the profession and co-workers (Carr 2000; Beauchamp & Childress 2001; Liaschenko & Peter 2004; Meulenbergs *et al.* 2004; International Council of Nurses 2005). It is therefore appropriate to consider the inclusion of legal and ethical knowledge into the conceptual framework.

7.2.1.1.5 Nursing knowledge

Nursing knowledge emerged as a new theme during the discussion. However, there was a disagreement about whether nursing knowledge is unique. Webber (2002, p.17) defines nursing knowledge as the cumulative, organised and dynamic body of scientific and phenomenological information used to identify, relate, understand, explain, predict, influence, and/or control nursing phenomena. It is clear that many nurse scholars contributed to develop unique knowledge for nursing in order to claim genuine professional status in comparison to other recognised professions (e.g.

medicine). It can be concluded that nursing knowledge encompasses unique knowledge and knowledge from other sciences.

7.2.1.1.6 Holistic view of client care

A new sub-theme of holistic view of client care emerged, incorporating pre-defined concepts of physical, psychological, socio-cultural and spiritual dimensions of client care. The nature of human beings is a central concept of nursing theory and practice (Thorne *et al.* 1998; Crisp & Taylor 2001). The holistic view of client care involves identifying the interrelationships of a person's bio-psycho-social-spiritual dimensions, recognising that the whole is greater than the sum of the parts and addresses the whole person as a living system interdependent with his/her social and environmental systems (Frisch 2001). The comprehensive nature of this approach enhances healthcare consumers' quality of life. In summary, the holistic view of client care was incorporated into the conceptual framework because it included physical, psychological, socio-cultural and spiritual dimensions of client care.

7.2.1.1.7 Clients' rights

Although patients' rights are increasingly emphasised around the world, most participants were concerned about clients' rights in Sri Lanka. Thus, clients' rights emerged as a new theme in participants' narratives. The International Council of Nurses (2006a) views health care as a right of all individuals, regardless of financial, political, geographic, racial or religious considerations. These rights include the decision to accept or decline care or nourishment; rights to informed consent; confidentiality; and dignity, and the right to die with dignity (International Council of Nurses 2006a). Nurses have an obligation to safeguard and actively promote healthcare consumers' rights, ensuring that adequate care is provided within the resources available and in accordance with nursing ethics (International Council of Nurses 2006a). It is therefore important to include clients' rights into the conceptual framework as clients' rights are deteriorating in Sri Lanka's healthcare system.

7.2.1.1.8 Community health nursing

The sub-theme of community health nursing emerged in the discussion on healthcare in Sri Lanka. Although the National Health Policy of Sri Lanka (NHP) (1992) recommended the re-establishment of the position of community nurse, this has not been realised so far due to various constraints (Jayasekara 2001). It has been recognised by many countries that establishing a strong community health nursing

service is a major policy imperative for improving health status among women, children, disabled people, the elderly and improving mental health in the community (Jayasekara 2001; Jayasekara & Schultz 2007). The concept of community health nursing should be integrated into nursing curricula and nurses should have theoretical knowledge and clinical experience of community health nursing (Jayasekara 2001).

7.2.1.1.9 Nursing education in the future

The sub-theme of nursing education in the future expressed the view that nursing education should be university-based and a bachelor's degree as the minimum preparation for beginning professional nursing practice. In 1992, the World Health Organisation Global Advisory Group recommended that, when appropriate, countries should move basic nursing education to university standards (Modly *et al.* 1995). This view was supported by many countries around the world (Royal College of Nursing 1997; AACN 2007; CNA 2007). As stated earlier in this chapter, Sri Lanka's government recommended that nursing education should be based on the 4-year undergraduate nursing program at universities. This policy decision can be implemented by increasing the annual intake for existing 4 year Bachelor of Nursing programs, and affiliation of existing nursing schools with the university sector. In addition, current registered nurses' qualifications should be upgraded to degree level through the expansion of the existing Post RN Bachelor program at the Open University, and establishing 2 year accelerated degree programs. However, it is necessary to increase the quantity and quality of nurse educators. Integrating current nursing tutors into the university sector on the basis of their qualification and experience is a possibility; however, their academic qualifications and skills should be upgraded through postgraduate education.

Furthermore, participants believed that nursing education in Sri Lanka should be based on a national framework. There is no evidence to support the contention that existing and proposed undergraduate nursing curricula in universities are based on a common philosophy or an acceptable needs assessment. Internationally, nursing education is regulated by national frameworks in many countries [e.g. The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN 1998)] and/or competency standards of regulation authorities (e.g. Australian Nursing and Midwifery Council, Nursing and Midwifery Council, UK). The conceptual framework of this study is based on the local and international evidence with

integration of key stakeholders' views and opinions (educators, clinicians, managers, administrators). Thus, this conceptual framework can be used as the basis for developing a national framework that will include contributions from other healthcare experts and public opinion. Although the national framework provides the guidance and expected outcomes of the program, the diversity of curricula should not be compromised because such diversity enhances nursing science.

7.2.1.2 Rejected concepts

The concept of environmental knowledge was removed from the conceptual framework due to the absence of focus group data and inadequate theoretical and practical background in nursing.

7.2.1.2.1 Environmental knowledge

The concept of knowledge was the least discussed area in comparison to the other major concepts. A possible reason for this is that most participants discussed some concepts and facts interchangeably under the concepts of knowledge and client; some concepts are relatively similar in meaning (e.g. socio-cultural knowledge vs. socio-cultural aspects of care). However, there was a serious lack of discussion regarding environmental knowledge. This is not surprising because the concept of environment within nursing is vague, burdened with competing and transient definitions, and lacks a consistent epistemology (Laustsen 2006). However, the writings of many theorists from Nightingale's *Notes on Nursing* (1959) to Fawcett's meta-paradigm (Fawcett 1995, 2000) identify environment as a major domain within the theoretical foundations of nursing. However, the domain as conceived by nursing theorists has historically focused on a narrow perception of the environment (Laustsen 2006).

Florence Nightingale referred to the environment as ventilation, warmth, light, diet, and cleanliness (Nightingale 1959). Jean Watson stressed the environment as mental, physical, socio-cultural, and spiritual (Watson 1979). Roy's environment comprised all the conditions, circumstances, and influences surrounding and affecting persons or groups (Roy 1984). Roper, Logan and Tierney's relatively recent model of nursing defined the environment as anything external to the person (Roper, Logan & Tierney 2000). A study of nurse theorists also revealed that the concept of environment has a plethora of meanings (Tomey & Alligood 1998). However, the concept of ecosystem, implying functional relationships of organisms, was not specifically identified in the nursing theories reviewed (Laustsen 2006). Laustsen (2006)

identified that there were no citations in CINAHL and MEDLINE that referred specifically to nursing ecological theory or behaviour. However, some authors suggested paradigms and concepts that are congruent with developing an ecological theory base for nursing (Kleffel 1991; Meleis 1997). Environmental knowledge is not a standard part of the curriculum for healthcare professionals; therefore it represents a challenge for the nursing profession. However, developing an ecological nursing theory will contribute to the development of a more environmentally friendly nursing practice (Laustsen 2006). In conclusion, the concept of environmental knowledge has been rejected due to its disparate theoretical and practical representation in nursing. However, this aspect of knowledge is, in part, subsumed into socio-cultural and politico-economic knowledge areas.

7.2.1.3 Final conceptual framework

The final conceptual framework for undergraduate nursing curricula in Sri Lanka was shaped by the findings of the focus group discussion and the related literature. (Figure 4) Although it is not necessary for a graphic or model to accompany a description of the conceptual framework, it does help to explain the important concepts in the framework (Boland 1998).
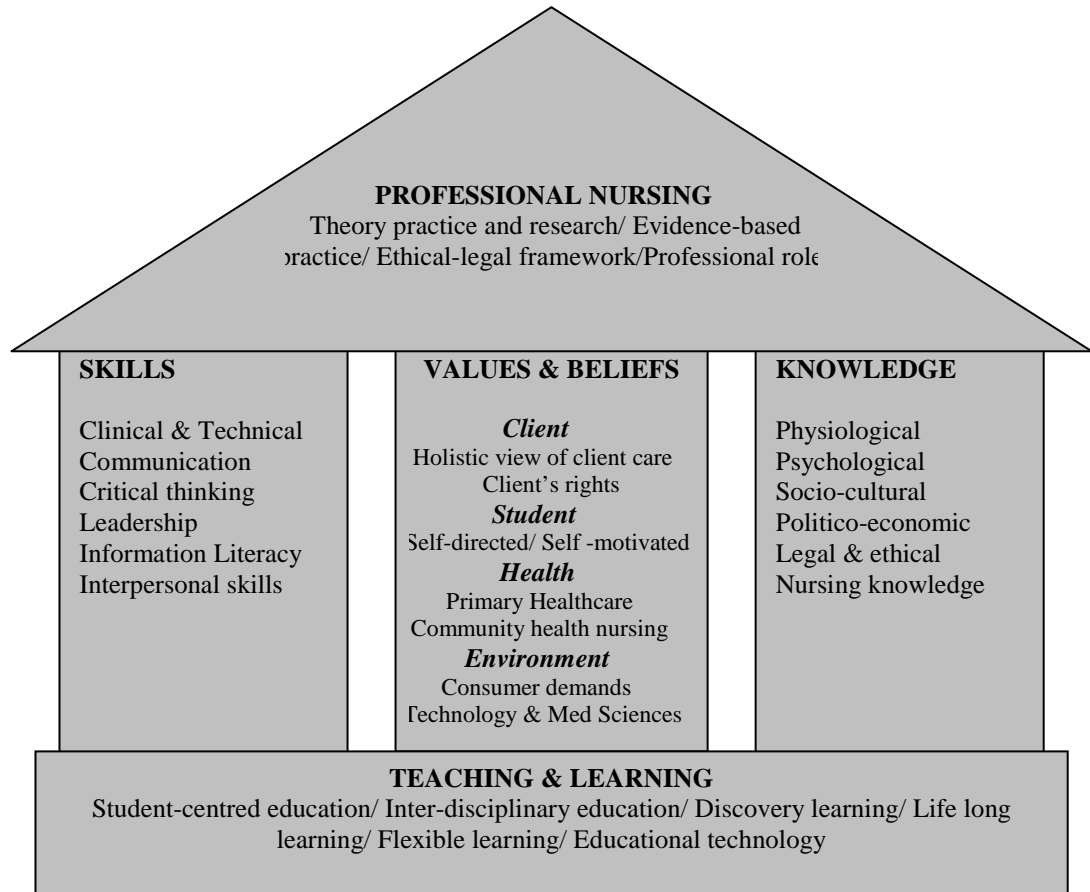
Figure 4: An evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka

7.2.2 Overall conceptual framework

A majority of participants concluded that the draft conceptual framework incorporated the most important concepts and features of nursing in Sri Lanka (e.g. "*I believe your whole conceptual framework is much more likely to address all aspects of our nursing in Sri Lanka" (S Tu 1: L.985-987); "Your model includes all of the things that are necessary to address the nursing discipline in Sri Lanka" (Con 1: L.557-558); "With the foundation of teaching and learning, you have incorporated the necessary components that are essential to undergraduate nursing curricula in Sri Lanka" (Lec 2: Evaluation Form).* While this framework incorporated all of the essential concepts, several participants asserted that some concepts are not directly applicable due to Sri Lanka's political, social, cultural and economic circumstances (e.g. "*Some concepts cannot be directly applicable at the time due to some practical constrictions, but we can still use these with some modifications" (Lec 1: L.256-258); "This is a good model based on solid foundations, but it should be defined in our cultural context and current trends and*

issues in healthcare" (Lec 4: Evaluation Form); "I think we cannot use some concepts directly as they are being used in developed countries. Some of these concepts should be modified according to our country's cultural and economic context" (Tu 11: L.977-980). The aim of this section is therefore to discuss the concepts that need to be further refined to ensure they reflect the realities of Sri Lanka's social, cultural and economic contexts.

7.2.2.1 Cultural relevancy of concepts

Historically, most developing countries have borrowed and adapted other countries' curricula (mostly from Western nations) for restructuring their own nursing curricula, mainly through internationally funded or collaborative education projects (Davis 1999; Jayasekara & Schultz 2006). Nursing in Sri Lanka has been influenced by Western countries' ideas and policies since the establishment of Western-style hospitals in Sri Lanka during the twentieth century (Jayasekara & McCutcheon 2006).

7.2.2.1.1 Western countries' influence on nursing in Sri Lanka

Western countries' influence on nursing in Sri Lanka can be discussed in accordance with Davis' (1999) three categories: (1) the influence of international literature and guidelines; (2) the influence of international funded projects; and (3) the influence of developed countries' nursing education.

7.2.2.1.1.1 Influence of international literature and guidelines

Early nursing services in Sri Lanka were influenced strongly by the British nursing tradition characterised by an apprenticeship style of nurse training (Stein-Parbury 2000; Jayasekara & McCutcheon 2006). In Sri Lanka, pre-registration nursing education is based on both Virginia Henderson's and the International Council of Nurses' (ICN) definition of nursing (Cameron 2001). In addition, Western countries' educational materials (e.g. text books, journals, etc.) and guidelines (e.g. nursing process, ICN Code of Ethics) were heavily used in nursing programs. However, there has been no systematic evaluation of the effect of international theories and concepts on Sri Lanka's nursing services and education system. In focus groups, two participants remarked on the use of international guidelines in Sri Lanka, but not in much detail (Tu 15: L1257-1259; Lec 4: L.273-275).

7.2.2.1.1.2 Influence of international funded projects

As a developing country, Sri Lanka has been seeking international funding for educational and service sector development. The Japan International Cooperation Agency (JICA) funded the National School of Nursing, which was established in 1997. However, strategies to improve nursing education using the Japanese model have not been fully realised in Sri Lanka due to under-utilisation of educational materials (JICA 2002). The strong influence of established American and British methods was a possible reason for the under-utilisation of Japanese educational materials and methods in other nursing schools in Sri Lanka. The Canadian International Development Agency (CIDA) funded the Post RN BSc Nursing program at the Open University of Sri Lanka. It utilised modified Canadian and Indian models incorporating local experts' knowledge due to a different learning environment in Sri Lanka (Cameron 2001; Jayasekara & Schultz 2006). However, this program depends on developed countries' educational materials because the local literature is inadequate. In 4-year BSc Nursing programs, the curriculum developers were mainly local medical doctors with assistance from foreign nursing experts. As a result, these curricula were heavily based on medical models that were originally conceived in the Western world. In conclusion, nursing education in Sri Lanka has not been significantly influenced by international funded nursing projects in terms of changing the domination of Western medical models.

7.2.2.1.1.3 Influence of developed countries' nursing education

It is estimated that in 1993 approximately 17 Sri Lankan nurses had baccalaureate degrees while four had Masters degrees (Cameron 2001). Most of these nurses graduated from Indian universities while a few graduated in the United States. During 1993-2006, four nurses obtained Masters Degrees in Canada ($n=2$) and Australia ($n=2$) and 20 Masters graduates were locally prepared in a WHO project with academic assistance from an Australian university. However, there is no evidence that these graduates significantly altered current practice in Sri Lanka.

In summary, nursing education and practice in Sri Lanka remains influenced by Western nursing traditions. Although there is no available evidence on conflicting aspects of Western concepts and theories in Sri Lanka's cultural context, several participants expressed the view that some concepts of the draft conceptual framework cannot be directly integrated into nursing curricula.

7.2.2.1.2 Integration of Western theories and concepts

Some participants argued that the cultural context of Sri Lanka should be taken into account when considering the potential applicability of Western nursing concepts and theories. Although nursing theory has universal aspects, the differences in philosophy and culture that are unique to each country need to be considered (Shin 2001). Although Asian and Western worldviews of human beings and health are not mutually exclusive (Kao, Reeder, Hsu & Cheng 2006), they are not totally congruent. The analysis of focus group data revealed that the cultural views of privacy and autonomy should be considered in the integration of Western theories and concepts into Sri Lanka's nursing system.

7.2.2.1.2.1 Privacy

In Sri Lanka, public views on privacy in the health context differ greatly from those in the West (Monshi & Zieglmayer 2004). Sri Lankans are very interested in telling personal life stories and the role of fate to strangers of another culture (Monshi & Zieglmayer 2004). However, physical contact is generally exceptional and uncommon in Sri Lanka (Monshi & Zieglmayer 2004). Sri Lanka's greeting ritual underpins this fact that most Sri Lankans typically fold their hands chest high instead of shaking hands. A participant noted that in Western countries a patient's clothes are removed before having a bed bath, but most Sri Lankans do not agree with this procedure (S Tu 3: L.1211-1214). Therefore the patient tends to remain fully dressed during medical examinations and treatment. This is true even within the family as there is little skin contact between spouses, parents, and their children in contrast to Western standards. Furthermore, several participants commented that cultural aspects of care do not make it possible for them to maintain relationships with clients. Although human touch is a positive intervention for care, Sri Lankan nurses typically do not touch patients except in direct care (Tu 7: L.917-919). Furthermore, it is apparent that healthcare professionals are not usually very close to patients and nurses are reluctant to sit with their patients (NM 2: L.923-925). However, it is not clear that this norm is solely based on the physical contact or privacy beliefs as some factors such as professional status are also highly respected in Sri Lankan society.

7.2.2.1.2.2 Autonomy

Although autonomy (individualism) is highly valued in the West and its nursing profession, this value orientation poses a challenge to Eastern culture, which

predominantly values collectivism (e.g. loyalties of a person to a group exceed the rights of the individual) (Davis 1999; Ahmed & Lemkau 2000; Xu *et al.* 2002). In Sri Lanka, traditionally, most patients make healthcare decisions with their family's involvement. In fact, several participants stressed that the patient and family members should be involved in decision making (e.g. NM 3: L.1160-1163). However, it is apparent that most healthcare professionals ask for the patient's consent without family involvement. The reason for the suppression of healthcare professionals' indigenous ethical values is the domination of Western values in the Sri Lankan healthcare system. Typically, most Sri Lankans have medical consultations with their families present. Monshi and Zieglmayer (2004) revealed that 80.6% (*n* = 29) of patients presenting at Western or Ayurvedic medical consultations with one or several persons. In fact, the healthcare decisions of an individual are largely determined by the family. This is true in many Eastern cultures, for example: India, Sri Lanka, Bangladesh and Pakistan (Ahmed & Lemkau 2000); China (Chen 2001; Xu *et al.* 2002; Li & Buechel 2007); Japan (Wros, Doutrich & Izumi 2004; Davis & Konishi 2007); and South Korea (Kim 2005). This values orientation extends to the medical and nursing practice in most Eastern countries. For example, terminally ill patients are not always informed of their diagnoses and prognoses. Usually, the physician informs the family members who then decide whether or not to tell the patient (Davis 1999).

7.2.2.1.3 Influence of cultural values in nursing

In focus groups, several participants explored Sri Lanka's cultural values and their impact on the nursing profession. This discussion can be categorised into four sections: (1) status of women; (2) the dominance of the medical profession; (3) influence of language, and (4) the influence of Buddhism and indigenous medicine.

7.2.2.1.3.1 Status of women

Although Sri Lankan women have a relatively better status than women in many other developing countries, gender equality and empowerment are yet to be achieved in accordance with international norms (Asian Development Bank 2004). Despite the full rights of citizenship, Sri Lankan women consistently defer to men across all domains of life, including the workplace and the home. Women also bear the greater weight of social expectations and sanctions for non-compliance. A participant stated that the professional roles of female nurses as they currently stand are being

hampered by social and familial expectations, because Sri Lankan women are expected to act as a good mother and a good wife (Lec 2: 80-84). This situation directly influences working conditions and limits opportunities for career growth and advancement in the nursing profession. In addition, the view on nurses' subservient role to predominantly male physicians is still a powerful one in Sri Lanka.

7.2.2.1.3.2 Medical dominance

Medical dominance of healthcare has traditionally been the organising principle in healthcare delivery (Kenny & Adamson 1992). In Sri Lanka, medical doctors' influence on healthcare administration is prominent. It is manifested through professional autonomy, dominance over allied health professionals and the influence of medical associations. In 2006, only three out of approximately 50 directors in the Ministry of Health in Sri Lanka were key nursing directors. In effect, the nurses are on the margins of decision-making processes in the state bureaucracy (Biyanwila 2005). Most participants expressed their views on medical professionals' influence over the nursing services. In Sri Lanka, doctors make all decisions about patient care (e.g. NM 2: L.859-861; Lec 2: L.33-36) and nurses were not allowed to make decisions even though they were fully trained and accountable (NM 3: L.1070-1075). As a result, the current healthcare environment does not provide much scope for improving nurses' critical thinking skills in the clinical setting (Tu 9: L.890-891). On the other hand, the choice and promotion of nurse managers and administrators further complicates this situation as nursing's promotional system rewards longevity of employment rather than skills and education.

This tendency may promote authoritarian decision-making that ignores nurses' opinions and does little to encourage staff nurses developing knowledge and skills. In fact, nurses experience continuous inner conflicts, frustrations and dissatisfaction due to limited opportunities in healthcare decision-making. Furthermore, several participants argued against the recent trend of doctors influencing allied health professionals' education as some medical students were used to protest against the government's decision on transferring allied health education to the university sector (Lec 6: L.539-542; Adm 1: L.754-756). This situation is further hampered due to a lack of a separate nursing council as current nursing regulations are managed by the Sri Lanka Medical Council and Ministry of Health, which are dominated by medical professionals (e.g. Lec 4: L.345-347). In fact, inter-professional conflicts make it

difficult to implement interdisciplinary education among healthcare disciplines in Sri Lanka.

7.2.2.1.3.3 Influence of language

Language is one of the most important elements representing the national identity and is inherently linked with the culture of a society (Peterson & Coltrane 2003). In Sri Lanka, Sinhala and Tamil are the two official languages but Sinhala is spoken by the Sinhalese majority while Tamil is used by the Tamils (Department of Census & Statistics 2005). English is spoken by approximately 10% of the population, and is widely used for education, scientific and commercial purposes (Department of Census & Statistics 2005). The national language issue does influence both the cultural and political spheres and it has been a major bone of contention between the Sinhalese and Tamils. A lack of integration of both languages into the education of both societies is inhibiting proper communication. In the health sector, it can be difficult for both patients and staff to communicate effectively (Lec 4: L.418-423).

Since 1959 the medium of instruction in nursing schools has been the Sinhala language (de Silva 1978). This situation creates a barrier to foreign employment and educational opportunities for Sri Lankan nurses and to the academic development of nursing, especially compared to medicine (Tu 8: L.910-912). It is also a barrier to using evidence-based practice and self-directed learning as most literature is published in English (Lec1: L.25-26; 151-153). Because English is admired, doctors are respected in society as they use English in practice. It is apparent that this situation clearly increases the doctors' dominance over nurses and society.

7.2.2.1.3.4 Influence of Buddhism and indigenous medicine

Buddhism in Sri Lanka is primarily of the Theravada school, and constitutes the religious faith of about 70% of the population (Department of Census & Statistics 2005). In Buddhism, good health is considered to be the most important thing in life and nursing the sick is the most respected form of work. Care for the sick is underpinned by the Buddha's own example of compassionate action and by giving priority to the needs of the sick and dying. In focus groups, several participants expressed the positive role played by Buddhism in assisting the spiritual needs of patients (e.g. Con 1: L.415-417; Lec 1: L.145-146; Tu 14: L.1312-1313). However, several participants were concerned with the negative public image of nurses' work in that people assume that nurses only do cleaning-type work in hospitals (Tu 7:

L.873-876; Tu 14: L.1240-1243). A lack of public awareness about nursing care and the perception that nurses engage only in limited intellectual tasks is considered to be a major reason for this assertion. Furthermore, it is apparent that Buddhist views of healthcare and nursing have not been successfully integrated into Sri Lanka's nursing system. Buddhism has only permeated all aspects of nursing and health care in a few other countries, for example Thailand (Burnard & Naiyapatana 2004).

Buddhism is consistent with this emphasis on personal control and responsibility, as well as the idea of health as a form of self-actualisation or 'optimal functioning', as expressed by many nursing theorists (Rogers 1970; Newman 1986). The view of health provided in Buddhism offers the potential for nursing to demonstrate a unique contribution to individual well-being. The explanation of suffering provided in Buddhism emphasises the development of the whole person, not merely the separate parts or systems (Rodgers & Yen 2002). However, the dominant influence of Western philosophies on nursing creates a situation where it is challenging to connect Buddhism and contemporary nursing practice and thought (Rodgers & Yen 2002). Alternative views of knowledge and human existence can provide nurses with a wider variety of perspectives (Rodgers & Yen 2002). In fact, Buddhism is an excellent example of how Eastern philosophies may be highly consistent with what typically is regarded as the essence of nursing.

In Sri Lanka, Buddhism influenced the advent of Ayurveda and traditional indigenous medicine (*Desiya Chikithsa*) in the 3rd century B.C (Arseculeratne 2002; Jayasekara & McCutcheon 2006). The traditional healthcare system provided all healthcare needs of the people (Jayasekara & McCutcheon 2006). However, this tradition was lost during the 16th century due to the influence of Western medicine (de Silva 1997; Arseculeratne 2002). However, traditional treatments are still popular and effective for some diseases. The focus groups emphasised the importance of integrating the traditional system of medicine into the healthcare system enabling the provision of a more culturally friendly patient care environment (e.g. Lec 4: L.495-500). However, it is recommended that research should be conducted to assess the effectiveness of traditional medical interventions.

In conclusion, the cultural relevance of international nursing concepts should be considered due to the different worldviews from which they arrive. Furthermore, it is deemed necessary to assess the impact of the local culture on the nursing profession.

In Sri Lanka, the influence of Western theory and concepts make themselves felt through the international literature. However, there is no significant evidence or comments from focus group participants in regard to the conflicting aspects of these Western concepts in nursing in Sri Lanka. The possible reason is that nurses and the public have generally accepted Western ways since the advent of colonialism. However, the cultural relevancy of Western nursing theories and concepts should be analysed in terms of the meaning of privacy and autonomy in Sri Lankan culture. It is apparent that Sri Lankan cultural values have a major impact on nursing because some values act as impediments to developing professionalism in nursing. The status of Sri Lankan women, the view of nurses' subservient role, the dominance of the mainly male medical profession and language barriers are the major obstacles for developing the nursing profession in Sri Lanka. The integration of cultural values, especially Buddhist views of healthcare into nursing is seen as a strategy for culturally relevant nursing practice in Sri Lanka.

7.2.2.2 Relevance of economic factors

The feasibility of the conceptual framework largely depends on allocation of resources (e.g. integration of evidence-based practice, information literacy, holistic view of client care, healthcare consumer demands, technology, self-directed learning). The relevance of economic factors is described in two sections: (1) influence on healthcare services; and (2) influence on education and research.

7.2.2.2.1 Influence on healthcare services

The resources and facilities allocated for healthcare services affect both healthcare consumers and healthcare workers. Since independence from the British in 1948, successive Sri Lanka governments have invested heavily in the public healthcare infrastructure and developing an extensive network of free primary and secondary services at the point of delivery. However, total public expenditure on health averaged less than 2% of GDP in the last fifty years, which is very low according to the WHO recommendation of 5% (Abeykoon 2003).

7.2.2.2.1.1 Impact on healthcare consumers

Even though the major portion of health expenditure is utilised by curative care services compared to community healthcare, many focus group participants indicated their concern at the inadequate facilities and long waiting time for treatment in government sector hospitals (Tu 8: L.849-851; RN 1: L.920-922; Lec 4: L.407-410).

In Sri Lanka, large public healthcare facilities experience overcrowded outpatient departments, long queues and bed occupancy rates of over 100% - problems exacerbated by the lack of a rigid referral system (Caldwell, Gajanayake, Caldwell & Peiris 1989; Russell 2005). The high patient loads contribute to cursory consultations at public outpatient departments causing many patients to seek outpatient treatment at private clinics and pharmacies (Jayasinghe, De Silva, Mendis & Lie 1998; Russell 2005).

During the past two decades, the private sector has played an increasing role in the provision of healthcare in Sri Lanka, especially the curative aspects, where accessibility is determined mainly by ability to pay. However, a household study in Sri Lanka revealed that people from a range of income groups preferred to use public healthcare providers for more serious illnesses because public services were free and they trusted the technical competence of public providers at both a personal and institutional level (Russell 2005). However, the data revealed that interpersonal quality of care was lacking in the public sector and as a result, even the poorest in society preferred to use private providers for moderate and acute illnesses (Russell 2005). Several participants in the focus groups highlighted that people are willing to pay for private healthcare services as they save time and provides better relationships with private doctors (CN1 2: L.1308-1311; Lec 4: L.407-410).

However, most families have little or no ability to pay for healthcare after meeting basic needs such as food and shelter. Russell and Gilson (2006) study found that any healthcare expense, even a moderate direct cost burden of 2.5–5% of monthly income, or a loss of income due to illness, inevitably triggered borrowing, pawning, or cuts to food and education. Several focus group participants expressed their view about this situation in the context of economic aspects of patient care and suggested that holistic nursing care should be integrated into nursing services and education (CN1 2: L.1308-1311; Lec 4: L.407-410). In addition, it was suggested that patients' demands and preferences should be considered in public sector healthcare institutions because the poor relationships between clients and staff act as an access barrier and divert many who can ill afford it to the private sector (Tu 12: L.1342-1346; Tu 15: L. 1347-1352).

The issues are brought into sharp focus in developing countries such as Sri Lanka where the introduction of modern technologies for curative care by the private sector

has taken place in the environment of a free healthcare system. The presence of two systems creates some complex issues with the possibility for state medical doctors to do private practice outside office hours (Jayasinghe *et al.* 1998). Thus it is often observed that patients seen in the private sector are referred to the state sector for expensive investigations or for follow-up (Lec 2: L.188-192) (Jayasinghe *et al.* 1998). In fact, the people who can pay for medical services in the private sector competes for the resources available to those who are unable to afford such services.

The introduction of new technology and new treatments should be considered at the same time as there is evidence that not everybody receives even basic health care. The choice between expensive high technology with benefits for a few people and low cost care with benefits for a higher number of people will be of increasing importance. A strong community health nursing service is a major policy direction for improving health status among women, children, disabled people and the elderly (Jayasekara 2001; Jayasekara & Schultz 2007). In response, instituting primary healthcare and community health nurses was recommended by the Sri Lanka National Health Policy 15 years ago (Ministry of Health 1992). Similarly, most focus groups participants suggested that primary healthcare and community health nursing should be increased (Lec 2: L.160-164; Tu 16: L.1331-1333; Lec 1: L.165-166; Tu 8: L.954-956). However, government resource allocations and policy directions need to be improved in order to fully implement primary healthcare and community health nursing in Sri Lanka.

7.2.2.2.1.2 *Impact on healthcare workers*

Globally, many health workers endure poor work environments, low wages, unsupportive management and a lack of social recognition and career development (Mawn & Reece 2000; Pearson & Peels 2001a; WHO 2006b; International Council of Nurses 2007). In Sri Lanka, nurses are the largest healthcare professionals involved in the delivery of nursing care in hospitals. However, most nurses are working in poorly maintained, over-crowded hospitals (Pearson & Peels 2001a; Biyanwila 2005). Many government hospitals lack beds, toilet facilities and basic amenities for patients and facilities for visitors (Attanayake 1997; Biyanwila 2005). Many participants stated that inadequate facilities and resources are major constraints on quality nursing care. Furthermore, they pointed out that such conditions are further exacerbated by a severe shortage of nurses (e.g. Lec 6: l.292-293; Lec 5:

L.298-301; CNI 2: L.1208-1210; S Tu 2: L.996-998). Nurses are now doing more work and longer shifts, at a faster pace (Con 2: L.3004-307). Even the opportunity to refuse overtime work is limited. Sri Lankan nurses are often involved in a range of non-nursing tasks such as clerical work, conducting linen and drug inventories, reception, and serving meals. Despite official safety guidelines, nurses face higher risks of deadly infections (e.g. Hepatitis B, HIV) due to basic shortages of soap, masks and gloves and washing facilities in most government hospitals. It is apparent that such a situation has a direct effect on: nurses' performance in clinical settings (e.g. clinical skills, integration of theory and evidence-based practice into clinical practice); nurses' motivation for education (e.g. life-long learning); and the quality of patient care (e.g. holistic view of client care). However, in the focus groups it was argued that nursing care should not be compromised and nurses should utilise available resources because Sri Lanka is a developing country (Adm 2: L.990-994; Con 1: L.328-332). In Sri Lanka, nurses' struggles for improving their working conditions and wages are prominent and they have been shaped by both the labour movement and women's movement (de Silva 1978; Uragoda 1987; Biyanwila 2005). The International Nursing Council recommended that governments and international financial institutions must work together to ensure informed macroeconomic decision-making creates better fiscal environments that support workforce development and well-functioning, responsive health systems (International Council of Nurses 2006).

7.2.2.2.2 Influence on education and evidence-based practice

Nursing education and research are key factors in quality nursing care and the allocation of resources for education and research affects the quality of outcomes. This section describes the relevance of economic factors in nursing education and research in Sri Lanka.

7.2.2.2.2.1 Impact on education

Basic nursing education is not only expected to produce the required numbers of nurses for health services, but also to enhance their quality, in the sense of equipping them with the knowledge and skills needed to provide safe and quality care (JICA 2005). In developing countries and particularly in low income countries, there is an urgent need to improve the quantity and quality of nurses (WHO-ROSEA 2003; JICA 2005). In Sri Lanka, although more nurses are being trained annually, there is

no equivalent increase in infrastructure facilities (e.g. class rooms, libraries, teaching and learning materials) and human resources (nurse educators) (Lec 2: L.21-22; Tu 10: L.937-940; Tu 3: L.692-693). As a result, overcrowded classrooms, inadequate equipment and teaching staff adversely affect the quality of nursing education (Ministry of Health Nutrition & Welfare 2002; Munasinghe 2002).

A severe shortage of nurse educators in both nursing schools and the university sector is a major problem. In addition, the improvement in quality of educators (e.g. postgraduate qualifications, teaching skills,) and teaching and learning strategies (e.g. student-centred approach, flexible learning, coordination of education and clinical practice) are also problematic in Sri Lanka. In this context, it is a challenge to implement student-centred education, self-directed discovery learning and incorporating educational technology into nursing education. Poor planning, coordination, allocation and expenditure of funds means that resources do not always go where they are needed (Adm 1: L.1097-1100; Lec 3: L.178-180). Funds are not allocated directly to the principals of nursing schools but are routed through the directors of the respective teaching hospitals who decide how the funds are to be allocated.

It can be argued that nursing education is an investment in a country as it provides qualified nurses for the healthcare workforce, improves patient care outcomes, and directly/indirectly impacts on the economy. In Sri Lanka, although a large number of applicants are waiting to be nurses, existing nursing schools are hampered because there are not enough resources to expand educational capacity. Interestingly, Sri Lankan nurse students in nursing schools (Ministry of Health) are paid wages for their work in the hospital and while it is an effective way of addressing students' financial needs, university nursing students are yet to be incorporated into this system. It is apparent that paying wages during the training period is a major factor in attracting a large number of applicants to nursing. Secondly, it is evident that lower nurse to patient ratios lead to complications and poorer patient outcomes (Kovner & Gergen 1998; Shullanberger 2000; Sasichay-Akkadechanunt, Scalzi & Jawad 2003). The ICN Safe Staffing Saves Lives tool kit (International Council of Nurses 2006b) reinforces the view that higher staffing levels are linked to better outcomes (Aiken, Clarke, Sloane, Sochalski & Silber 2002). Finally, it can be argued

that the education of more employable nurses has economic benefits. Job creation is a basic tenet of improving the national economy.

7.2.2.2.2.2 Impact on evidence-based practice

Much of the effort of evidence-based nursing is being focused on establishing research priorities and on the dissemination and implementation of evidence (Thompson 2004). Although there is certainly a willingness, enthusiasm, and commitment from nurses in Asia to contribute to evidence-based nursing, the real barrier is limited research opportunities and resources in terms of capacity and funding (Thompson 2004). Evidence-based nursing was introduced to Sri Lanka in 2000 for the first Masters program (Jayasekara 2003). However, Sri Lanka has yet to reach the stage of incorporating nursing research into education and practice (Pearson & Peels 2001). Several participants said that inadequate facilities and resources are the major problems in acquiring and disseminating research knowledge. In evidence-based practice, several impediments can be identified in relation to Sri Lanka. A lack of basic research education in pre-registration nursing programs was the major constraint in acquiring evidence-based practice (Lec 1: L.42-44; Lec 2: L.27-28; Lec 4: L.264-270; Lec 6: L.286-288).

Although the university nursing programs have included research components, a lack of literature and resources (e.g. internet and computer facilities), a long and complex process of getting ethical and administrative approval, and the absence of funds for nursing research are major constraints for generating evidence in nursing in Sri Lanka (Lec 2: L.21-22: L.33-36; Lec 3: L.47-50; Lec 4: L.270-272; Lec 6: L.308-310; Tu 1: L.578-580). The dissemination of research findings in Sri Lanka is also problematic due to a lack of local nursing journals, conferences, education and training programs, and motivation (e.g. language barrier) (Lec1: L.25-26;Lec 6: l.292-293; Tu 1: L.596-598). A highly controlled decision-making system of healthcare and education is considered as a major barrier to evidence utilisation (Lec 2: L.12-15; Lec 4: L.270-272). The establishment of a separate nursing research and ethics committee and a nursing advisory committee are some solutions to this. In the era of diminishing allocation of funds for health and education, establishing a research culture in a developing country is a huge challenge for both nurses and their professional associations.

In conclusion, economic factors are the major barrier to implementing concepts that are resource intensive. The implementation of an holistic approach to client care is constrained by inadequate resources as most public hospitals are overcrowded with severe shortage of nurses and basic facilities. This situation has further deteriorated due to poor working conditions for healthcare workers and poor healthcare worker-patient relationships. Although nursing education and research are the key factors in quality nursing care, it is a challenge to implement modern teaching and learning strategies and evidence-based practice in Sri Lanka due to limited resources and inappropriate management strategies.

7.3 Conclusion

The purpose of the present study was to develop an evidence-based conceptual framework for undergraduate nursing curricula in Sri Lanka. The process of developing this conceptual framework involved several steps: (1) analysing nursing and educational theories and concepts regarding the nature of the conceptual framework within nursing curricula; (2) synthesising the evidence on effectiveness, appropriateness and feasibility of current curricula models/conceptual frameworks, and their potential applicability in Sri Lanka; (3) analysing current trends and issues in global, regional and local healthcare, and nursing education to identify relevant concepts; (4) developing a draft conceptual framework using the findings of the above evidence and concepts; (5) evaluating the feasibility and appropriateness of the draft conceptual framework, getting feedback and opinions from key stakeholders in the nursing profession in Sri Lanka; and (6) developing an evidence-based conceptual framework that is feasible and appropriate for Sri Lanka.

The development of a national framework for undergraduate nursing education in Sri Lanka is crucially important at this stage where the basic nursing education is moving from a 3-year general nursing certificate to a 4-year university bachelor degree. The conceptual framework developed in this study incorporated widely recognised nursing concepts in international and local contexts, reflecting the contemporary needs of the nursing profession and current and future demands of healthcare. This conceptual framework incorporated issues surrounding its cultural and economic relevance by examining the views and opinions of key stakeholders in Sri Lanka and relevant literature

The cultural and economic contexts of a country have a direct impact on its health and education systems. The existing nursing education and services in Sri Lanka are influenced by Western countries' nursing mainly through the utilisation of international literature and theories. Although there is no available evidence that Western concepts are creating conflict in Sri Lanka, several participants in this study pointed out that the cultural relevance of Western nursing theories and concepts should be analysed in terms of what privacy and autonomy mean in Sri Lanka culturally. Furthermore, it is evident that the impact of local culture on the nursing profession is strong due the persistence of socio-cultural values such as the status of women, nurses' subservient role and the dominance of the medical profession. These are impediments to the development of professionalism in nursing.

This study also revealed that economic factors directly influence all aspects of healthcare, nursing practice and nurse education. The overcrowded wards, heavy workloads due to shortages of staff, inadequate facilities for patients and healthcare workers and inadequate management of healthcare resources lead to poor quality of care and dissatisfaction of both patients and healthcare workers. Similarly, nurse education and research are affected by limited resources and inappropriate management. It is a challenge to implement modern teaching and learning strategies using modern technology and evidence-based nursing practices in Sri Lanka

Chapter 8   Towards a reconsideration of nursing curricula in a developing country: conclusion and recommendations

8.1 Introduction

This chapter discusses the disconnect between the emergence of a Western-oriented conceptual framework for nursing education as the preferred approach for Sri Lanka and the contemporary needs of Sri Lanka and other developing countries. As such, it attempts to look beyond the findings of the present study to consider the numerous factors that impact on nursing education in Sri Lanka and to make recommendations for future educational practice and research in Sri Lanka.

8.2 Factors that shape nursing curricula in Sri Lanka

The present study identified several factors that shape the approach to nursing curricula in Sri Lanka. These factors include: Western influence; Sri Lanka's cultural influence; the current healthcare system and demand for healthcare; nursing systems and regulation; medical dominance; financial support; and Sri Lanka's education system (Figure 5). All of these factors appear to have some influence on the conceptualisation of nursing and educational strategies needed to effectively and appropriately prepare nurses in Sri Lanka.
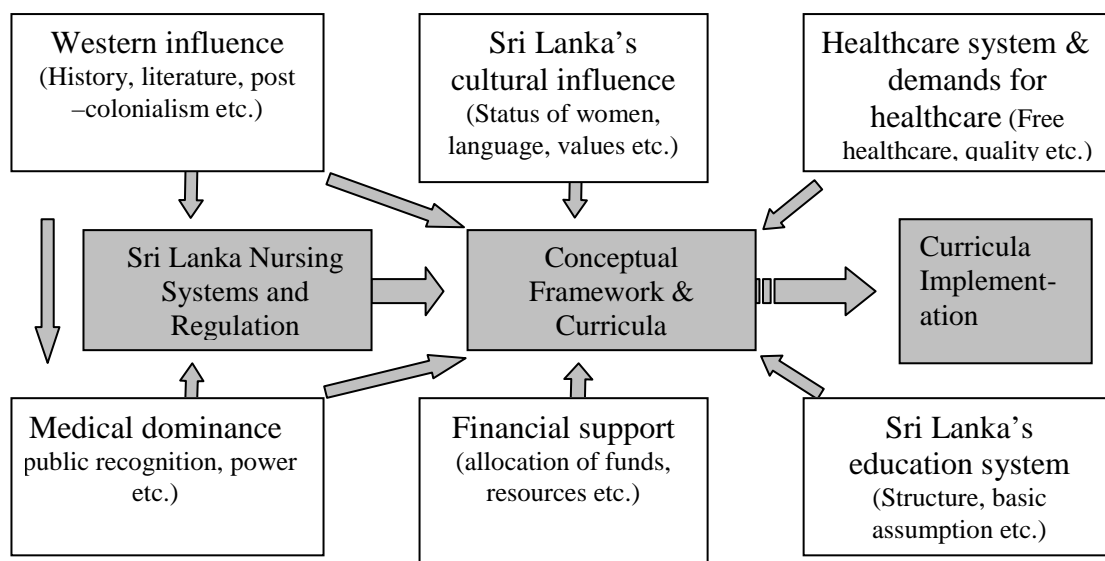
Figure 5: Factors that shape nursing curricula in Sri Lanka

8.2.1 Western influence

The dominance of Western concepts in Sri Lanka affects both the nursing and medical professions. Historically, due to the significant influence of colonialism, both professions have been strongly influenced by the British tradition of healthcare. As discussed earlier, the influence of Western views continues to affect both professions mainly through international literature. Similarly, Sri Lankan society is affected significantly by the dominant Western ideologies through media and information technology. There is no obvious conflict between Western and Eastern cultural values in Sri Lankan society, which is now a mixture of both due to the effects of colonialism and post-colonialism. The term 'post-colonialism' encompasses issues relating to the dilemma of what constitutes national identity for societies that have undergone colonialism. Centuries of colonial rule have given rise to a number of heterogeneous and hybrid social formations in Sri Lanka (de Silva 1997). Today, these formations have been homogenised, categorised and constructed for administrative, cultural, historical and (contemporary) political purposes (de Silva). Despite this assimilation and integration of mixed cultural values, it is apparent that some value-laden questions are still raised if some Western concepts are directly put into practice in Sri Lanka (e.g. privacy and autonomy).

In the present study, the conceptual framework is principally based on international concepts that are mostly conceived in the Western world. In the light of the existing situation in Sri Lanka where society is continually affected by Western ideologies,

evaluation of the conceptual framework is problematic in terms of cultural and economic relevancy. Most Sri Lankan stakeholders accepted the conceptual framework that emerged in the study and the concepts it presented as relevant to Sri Lankan nursing profession and nursing education; however, some concepts were not able to be applied in contemporary practice because of inadequate resources. Indeed, there is little likelihood that some concepts could be applied in the near future. Similarly, the effectiveness and/or appropriateness of some concepts (e.g. holistic care, discovery learning, critical thinking etc.) has yet to be proven, even in developed and/or Western countries. In this context, it is problematic to utilise these concepts in developing countries. Thus, it is crucially important to determine the best way of putting this conceptual framework into practice in Sri Lanka.

8.2.2 Sri Lanka's cultural influence

The cultural values, beliefs and practices of Sri Lanka undoubtedly play a major role in the cultural practices of Sri Lankan nurses and of nursing education. However, the conceptual framework that emerged from this study is almost entirely reflective of Western cultural norms. In considering the need for curricula to be sensitive to Sri Lankan culture, it is apparent that the agreed framework includes no reference to the central tenets of Buddhist or Hindu beliefs or to the dominant ideologies associated with traditional Sri Lankan societies that preceded the Western colonisation of the country. The role and status of women, the influence of language and meaning, and the part that Buddhism and indigenous medicine play in the everyday lives of Sri Lankans appear to be nothing more than a set of cultural practices that can be congurent with a conceptual framework that is derived from centuries of Western thought, as long as such a framework is applied in a way that is "culturally sensitive". This begs the question: "Are Sri Lanka's cultural values and practices so similar to Western thought that they present no conflict with contemporary ideas of the West?" Such a conclusion would be disingenuous in the extreme. For example, the changes in the social status of women that characterises contemporary Western culture are not reflected in Sri Lanka because most Sri Lankan women do not believe that their status (e.g. of being a good mother, a good wife) is a problem for them. The longstanding traditional influence of Buddhism is a possible explanation for this situation. Similarly, should the use of the English language in nursing be increased in university education, will it actually contribute to the advancement of nursing in Sri

Lanka, or will it lead to a decentralisation of Sri Lankan ideas and thought and contribute to the adoption of Western ideologies? Would using Sinhala and Tamil in addition to English be in the best interests of Sri Lankan society and advancement of nursing?

Culturally acceptable practice will be an important strategy for future nursing education in Sri Lanka. Generally, patients' relatives assist with caring for patients (washing, toileting, feeding, etc.) and neither patients nor relatives expect to get holistic care from nurses. What is important are the favourites of patients and relatives in a context where most live in poverty. For example, most patients need to get treatment hurriedly and return to work. In fact, Sri Lankan nursing should respond to the needs of these patients. However, selection of a best model for nursing practice is a challenge for nurses because of dual world views (Western and Eastern) of nurses and society in Sri Lanka.

8.2.3 The healthcare system

The healthcare system and demands for healthcare are key considerations of implementing the conceptual framework. The Sri Lankan healthcare system is based on a free-of-charge public service that has contributed to the improved health status of the population. However, the effectiveness of healthcare is problematic compared to healthcare expenditure because even the poorest in the society prefer to use private healthcare providers. This dual system (government and private) needs to be incorporated in order to provide better healthcare; however, it is a challenge for policy makers in a context where medical doctors are dominant. The quality of care and facilities in government hospitals may be improved if the public are willing to pay for healthcare or through a public healthcare insurance system. But this decision would be a huge shock for the public and political system. It would be unlikely that such a system would be introduced to Sri Lanka in the near future due to political and social uncertainty. Thus healthcare facilities, systems of healthcare delivery and training of healthcare workers will likely remain unchanged for the future.

As discussed earlier, interpersonal quality of care (e.g. communication skills etc) is lacking in Sri Lankan public sector healthcare institutions. A heavy workload and poor working conditions make it difficult for nurses to provide quality care for patients. On the other hand, healthcare workers, especially nurses, are not satisfied

and motivated in the current healthcare environment as they are marginalised in healthcare decision-making. All of these factors adversely affect the quality of nursing care. Furthermore, interpersonal relationships are affected by healthcare workers' dominant role over patients who receive free healthcare. It is apparent that quality of care is not simply based on working conditions, but also the attitudes of nurses.

8.2.4 Sri Lankan nursing profession and regulation

Sri Lanka nursing service, education, administration and regulation is strongly influenced by Western ideas and the medical profession. Given the organisational structure of healthcare in Sri Lanka, it is unlikely that nursing will ever achieve autonomy in the idealised professional sense. This is still a problem even for Western/developed countries' nursing. There are several reasons for this, but most significantly, nurses work in complex hierarchies where they are subordinate to organisational structures, social recognition, and culturally-endorsed authority of medicine. In a developing country like Sri Lanka, the lack of professional autonomy is not a huge problem but nurses need to acquire clinical decision-making skills in order to provide better nursing care in a context where resources are limited.

The stated purpose of professional regulation is to protect the public and the profession. In Sri Lanka, the existing regulation of nursing by the Sri Lanka Medical Council is not adequate and there is a need to establish a nursing council. However, the current life-long registration system also needs to be revised by taking into account the effectiveness of renewal licensure systems and the preference of self regulation. Additionally if Buddhist views of healthcare and nursing can be integrated into Sri Lankan nursing, there is no need to provide Western codes of ethics to resolve moral issues of nursing. However, it is a challenge to introduce Eastern religious values into nursing in Sri Lanka as it has already been heavily influenced by Western thought.

8.2.5 Medical professionals' influence

Traditional physicians (*Vedamahattaya*) are highly respected by Sri Lankans. Similarly, western medical doctors' work is respected, but their influence and dominance in healthcare is greater than that of traditional physicians. Professional autonomy, better wages, higher education and political power through trade unions

make it difficult for other healthcare workers or even the government to challenge Sri Lankan medical doctors. Medical professionals' influence over nursing and allied health professions was apparent when the government decided to implement healthcare professionals' education at universities. Although, there were no apparent concerns raised by medical doctors against the government decision, concerted protest campaigns were launched by certain elements (e.g. medical students) and these have had a significant and continuing influence over university nursing education. The medical students demanded that allied health students should neither be admitted to the Faculties of Medicine nor be allowed to train in the teaching hospitals where the medical students undertake training. Furthermore, they insisted that the duration of the B Sc courses of the allied health students should be reduced to 3 years. It can be assumed that university education for nurses and allied healthcare workers interferes with doctors' existing dominance of the professional hierarchy of healthcare and other aspects relating to their work and wages. Interestingly, the quality of patient care – influenced by the skills and knowledge of nurses and allied healthcare workers – seems to be of secondary importance. In this context, interdisciplinary education among healthcare professionals is problematic and healthcare team work is disregarded.

8.2.6 Financial support

The feasibility of any project or plan largely depends on financial support. As discussed earlier, resources and facilities allocated to healthcare affect both patients and workers. It is an enormous challenge for governments to maintain free healthcare and education while the civil war drains the economy of Sri Lanka. A lack of proper financial management of the state sector seems to be a major problem in appropriate resource allocation. In addition, resourcing allocated for nursing education is largely determined by medical administrators; fiscal management is not a role of Sri Lankan nurse administrators. Furthermore, current disputes over healthcare professionals' education have direct impacts on the resources and financial support available for nursing education and research. In this context, it is a huge challenge to implement financially dependent concepts into nursing education. For example, the use of web-based learning or higher technology for patient care is highly unlikely in Sri Lanka. On the other hand, the effectiveness of these two interventions compared to the investment has not been scientifically proved where these technologies are currently

being used. Thus, nurses must be prepared to use available resources effectively and to develop sustainable strategies for nursing care in developing countries.

8.2.7 Sri Lanka's education system

Like healthcare, education from the primary to tertiary level is free of charge for all students in Sri Lanka. The aspiration for education is high among Sri Lankan parents because it is widely accepted that good education for children is of prime importance and that education is the only way to improve social mobility. In fact, Sri Lankan primary and secondary students are educated competitively and avoid even playing with peers. A strong focus on academic education leads to poorer acquisition of basic social skills that impact on social values of sharing, respect or considering others, particularly because the competition for entrance into popular university courses such as medicine and engineering is so intense and places are only offered to the highest ranked students. This has automatically introduced a 'superiority complex' amongst selected students.

A highly structured and inflexible tertiary education system in Sri Lanka makes it difficult to introduce new concepts such as flexible learning, distance education and student-centred education. Furthermore, Sri Lankan students are passive and not encouraged to ask questions of teachers, as teacher-centred education and respect for teachers are highly valued in society. Thus, the opportunity to develop creativity and critical thinking is limited. It is a huge challenge for the government to establish an appropriate and sustainable education system that promotes academic and social knowledge, skills and attitudes in students.

8.3 Implementation of the conceptual framework

It is clear that the conceptual framework is based on international theoretical concepts that were mostly conceived and implemented in Western countries. These concepts were evaluated in order to develop a feasible and appropriate conceptual framework that is culturally and economically relevant to Sri Lanka. However, it is apparent that the views of key stakeholders of nursing education in Sri Lanka did not indicate a need to radically alter the conceptual framework. Was this because the conceptual framework does not require modification and could be implemented successfully in Sri Lanka, particularly considering that nursing in Sri Lanka is already highly westernised through exposure to post colonial Western views of

education, professional literature and media? Or is this perhaps reflective of the social and cultural norms, particularly for nurses and nursing, which have been mentioned previously in this chapter? For example, perhaps nurses lack the confidence or consider it inappropriate to critically comment on such a framework, particularly when some of the concepts included in the draft framework were alien to some of the participants of the focus groups? A full understanding of this issue is critical to a resolution to the conundrum of how to implement this curriculum framework.

First, it must be considered that most developing countries have little or no choice in terms of promoting their own strategies. By and large, in the past such situations have involved the transplantation of developed countries' ideas through internationally funded projects to overcome a perception of a lack of local resources and expertise. However, it is necessary to understand that developed and/or Western countries' ideas are the product of their own usage and relevant for their socio-cultural and economic conditions. Exposure to Western views is not sufficient to transplant their strategies in socially, culturally and economically different developing countries. This complicates the issue of preparing and implementing appropriate strategies in developing countries. For example, a Canadian curriculum was modified to suit Sri Lanka; however such a modification could only be successfully accomplished with some of the courses. During the project period, curriculum developers also tried to modify an Indian curriculum for Sri Lanka; however, despite regional similarities, some concepts were not directly applicable to the Sri Lankan situation (Cameron 2001). Similarly, several studies revealed that developed countries' concepts and ideas could not readily be transferred to another country due to cultural and economical diversity (Davis 1999; Xu *et al.* 2002; Jayasekara & Schultz 2006). A direct transplantation of concepts and ideas from developed countries into developing countries (perhaps Western to Eastern) may create not only value conflict but also economically inappropriate strategies (Meleis 1979, 1980; Davis 1999).

Given this context, what possible way is there to implement this conceptual framework in Sri Lanka? Any implementation will be problematic due to the influences of external factors. First and foremost, the political environment must be considered. If there is no political imperative, then an implementation such as that

outlined here will ultimately fail, no matter how many people support it on the ground. As mentioned previously, other issues such as resourcing must also be considered, especially given the funding constraints within the health and education sectors of a developing country. If there are no funds available to implement the curriculum, or if there are other higher priority funding requirements in the health or education sectors, then it is difficult to see how an implementation could be undertaken, let alone to consider the success of the implementation. Finally, as previously discussed throughout the thesis, issues of culture and society must be incorporated into any implementation.

It is clearly important that local stakeholders are involved at all stages of the implementation and engaged to ensure that cultural and societal issues are considered as part of the implementation strategy. This can be achieved by establishing a task force that comprises key stakeholders of nursing, experts in healthcare and social sciences, and a representative of the public. The task force should be responsible for implementation of the following recommendations and ensuring that the cultural and social issues of healthcare and nursing are considered during the implementation phase.

8.4 Recommendations

Nursing education in Sri Lanka needs to reflect the contemporary needs of the nursing profession and current and future demands of healthcare. The following seven recommendations were developed from the findings of this study. They are designed to inform the planning process of nursing education, patient care services, management and research for the country. These recommendations are wider in scope due to the influence of a broad range of related factors associated with the potential implementation of the conceptual framework. All of these recommendations are of paramount importance for the successful implementation of the conceptual framework in the longer term.

8.4.1 Recommendation: Consistency in scope of practice

It is evident that there is a distinct lack of a national level framework or competency standards for nursing education and culturally acceptable ethical guidelines in Sri Lanka. A consistent national framework for undergraduate nursing education should

be developed and implemented across all undergraduate nursing programs (see section: 7.2.1.1.9). This can be achieved by:

- Incorporation of the conceptual framework developed in this study as the basis of developing a national framework for undergraduate nursing education.

- Promoting a united, collaborative approach in developing a national nursing education framework that recognises the wider contribution of clinical, education, and administration sectors integrated with healthcare experts' and public opinions.

- Development of a culturally acceptable and economically feasible nursing care model that delivers holistic care for patients and primary healthcare for the community (see section: 6.4.1.1).

- Development of national nursing competency standards on the basis of a national framework of nursing education regulating the nursing profession through a proposed Sri Lanka Nursing Council.

- Development of a culturally and socially acceptable Code of Ethics and a Code of Conduct using international and local guidelines and evidence.

8.4.2 Recommendation: Pre-registration nursing education

The current government policy regarding nursing education recommends that it should be based on the 4-year undergraduate nursing program at universities. A policy decision should be made concerning the bachelor degree as a minimum preparation for beginning professional nursing practice (see sections: 2.3.4.1; 7.2.1.1.9). This can be achieved by:

- Expansion of existing 4-year Bachelor of Nursing programs to accommodate the expected number of nurses in the government and private healthcare sectors.

- Affiliation of existing nursing schools with the universities and where appropriate integration of present nursing tutors into the university sector on the basis of their qualifications and experience.

- Expansion of existing Post RN Bachelor program at the Open University and establishment of pathway to degree programs (e.g. 2-year accelerated program) that enables current registered nurses to upgrade their qualifications.

8.4.3 Recommendation: Teaching and learning

It is evident that existing teaching and learning in nursing education are based on teacher-centred, inflexible, isolated and passive approaches. It is essential that teaching and learning should be improved by enhancing nurse educators' knowledge

and, skills and incorporating modern teaching and learning strategies with modern technology (see section: 4.3.2.3). This can be achieved by:

- Increasing the quantity and quality of nurse educators by providing postgraduate education opportunities through local and international universities.

- Establishment of a postgraduate institute for nursing to increase the quality of the nursing workforce for the education, nursing practice, research and administration sectors.

- Increasing the use of modern learning and teaching strategies (e.g. student-centred learning, self-directed discovery learning) with educational technology and information technology.

- Promoting inter-disciplinary education among healthcare professionals, which to facilitate team development in healthcare institutions.

- Establishing a life-long learning culture that can be made possible through continuing education and introducing a renewal licensure system.

- Offering flexible educational delivery models that enable nurses from diverse geographical locations (rural and remote) to enhance their qualifications while keeping them in their clinical practice.

8.4.4 Recommendation: Curricula content

It is apparent that existing nursing curricula for pre-registration programs are heavily based on Western-based concepts, theories and medical models. It is important that nursing curricula should reflect the current needs of healthcare and the community and are culturally appropriate and economically feasible (see section: 4.3.2.2). This can be achieved by:

- Integration of national model of nursing practice that is culturally acceptable and economically feasible into nursing curricula.

- Incorporating competency standards and a code of ethics in nursing curricula to ensure graduates are competent to practice safely and ethically in their professional nursing roles (e.g. as caregivers, advocators, educators, researchers).

- Integration of professional nursing skills (clinical, technical, critical thinking, leadership, information literacy and interpersonal skills) to enhance the nurses' decision-making abilities clinically, academically and socially.

- Increasing the broad balance of knowledge from medical sciences, social sciences and humanities in nursing curricula to improve nurses' understanding of patient, community, society and the world.

- Incorporating research education and training into nursing curricula to enable nurses to implement evidence-based practice for patient care.

- Increasing the curricula content of community healthcare and primary healthcare to provide the basis of developing community health nursing (see section: 7.2.1.1.8).

- Incorporating Buddhist values and views of healthcare into nursing curricula to improve culturally appropriate nursing care.

8.4.5 Recommendation: Evidence-based practice

There is considerable delay in acquiring evidence-based practice in Sri Lanka due to a lack of basic education and impediments in the evidence-based practice process (see sections: 2.3.4.3; 4.3.2.1; 6.1.3). This situation can be changed by:

- Introducing courses of evidence-based practice in basic, post-basic and university nursing programs to enable nurses' basic understanding of the evidence-based practice process.

- Establishing a nursing research and ethics committee that replaces the current long and complex process of getting ethical approval through medical ethics committees.

- Increasing the dissemination of research findings in Sri Lanka through the establishment of local nursing journals, conferences and education programs.

- Establishing a nursing advisory committee at the Ministry of Health so that it integrates best practice evidence into education and clinical practice.

- Establishing a close link between the education and clinical sectors to enable conduct of joint research and evidence utilisation.

8.4.6 Recommendation: Resources allocation and funding

A distinct lack of resource allocation and funding for patient care and nursing services, education and research is evident. It is vital that students and nurses in different sectors (educators, clinicians, administrators and researchers) have better working conditions and encouragement for further education, training and research (see section: 7.2.2.2). This can be achieved by:

- Allocating adequate resources and funds for developing basic and essential facilities for patients (e.g. beds, toilets, bathing facilities) and for nurses and healthcare workers (e.g. soap, masks and gloves and washing facilities).

- Increasing facilities (e.g. class rooms, libraries, teaching and learning materials, computers, internet etc.) in nursing education institutions.

- Allocating resources and funds for nursing research to enhance nursing research, education and patient care.

- Offering postgraduate scholarships for nurse educators, researchers and clinicians through local and international funding agencies (e.g. WHO) so

that nurses' undertaking of further education and professional development is made possible.

- Offering incentives for nursing students (e.g. monthly pay for clinical work for all students whether in nursing schools or university) and for post RN students (e.g. subsidised fees, study leave) to ensure continual recruitment for nursing and career development.

8.4.7 Recommendation: Image of nursing

It is evident that the public image of nursing has suffered greatly due to the poor relationship that exists between nurses and patients. It is therefore of paramount important that nurses should develop a better public image of nursing through professional work and development, professional relationships, culturally relevant practice and political lobbying (see sections: 6.1.1; 8.3). This can be achieved by:

- Increasing professional nursing care and being aware of patients and their relatives' needs, and taking into account the limited resources available in healthcare.

- Establishing a better professional relationship with healthcare consumers and other healthcare professionals and workers.

- Integration of cultural values systems, especially Buddhist views of healthcare, into nursing to ensure nursing practice is culturally relevant and to improve the public image of nursing.

- Strengthening professional relationships with medical professionals through joint education and research in the workplace.

- Strengthening professional nursing associations and trade unions to increase political lobbying and the image of nursing.