CONSTANCY AND DIFFERENCE IN THE DIMENSIONS AND ELEMENTS OF NURSING PRACTICE 1901 - 1981

A THESIS PRESENTED
IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF M.A. (SOC. SCI.)
AT MASSEY UNIVERSITY

BEVERLEY M. RAYNER

1983

ABSTRACT

This study presents a selective literature review in which the three components of modern nursing (practice, education and research) are identified. Consideration is given to the dimensions and elements of two of the components - nursing education and nursing practice and the relationship between these two components is investigated using the examination system of nursing education as the connective link.

From the literature review presented in the first three chapters, the Nursing Education Examination Practice Model (N.E.E.P.)$_4$ has been derived for this project which examines the constancy and differences in the six stated dimensions of nursing practice and their associated elements along a time continuum from 1901 to 1981. The model is used to collect and collate the data elicited from the analysis of the five yearly sample of State Final examination papers and the identification of historical trends in the New Zealand Nursing Journal, relating to the six dimensions of nursing practice and their associated elements. This two pronged approach allowed the author to crosscheck the findings from the two data sources. In addition, changes in the composition of nursing practice are studied in one specific area; the nursing care of patients with accidental trauma.

The following propositions were derived from the literature review presented in the first section of this study;

1. That the six dimensions of nursing practice (care, cure, protection, teaching, co-ordination and patient advocacy) will remain constant over time and different practice settings;

2. that the elements of each dimension will vary with time and with practice setting.

The findings elicited from the analysis of surgical examination papers revealed that the three dimensions of care, cure and co-ordination occur in all the time periods investigated in this study. The same three dimensions of nursing practice are evident in at least 81% of the time periods in which questions relating to accidental trauma in the examination papers are found. Therefore these three dimensions can be said to form the "heart" of nursing practice over the years. Although fluctuations occur in the importance placed upon the dimensions, from 1961 increasing emphasis is found in all the dimensions except the cure dimension where a declining trend is demonstrated. It was found that constancy in all six dimensions of nursing practice is apparent from this time.

An examination of the elements of nursing practice shows that although the three dimensions of nursing practice remain constant over the years, findings relating to the elements making up three dimensions indicate both constancy and differences. The five elements of nursing practice which make up the "core" elements of nursing practice are;

general nursing care;
reference to specific patients;
functional status;
treatments;
and nurse interactions.

References to these elements appear in each of the 17 time periods in the general analysis. Their importance in relation to the nursing of patients with accidental trauma is also evident. At the other extreme are the elements of sleep, blood pressure, and T.P.R. which appear in less than 3 of the 17 time periods. Reference to patient preferences/ interests are never found in the data elicited from the examination papers. Examination of accidental trauma findings reveals similar trends to the general results. From 1961 particularly the journal articles substantiate the findings elicited from the examination analysis.

A brief discussion of the implications of the constancy and difference in the dimensions of nursing practice and their associated elements for nursing is included.

ACKNOWLEDGEMENTS

I am grateful to Dr Nancy Kinross who gave freely of her time and knowledge. Without her help this thesis would not have been completed. Special mention should also be made of Mrs Fieldsend for her patience and care in the typing of the final copy; Mrs Henson for her assistance with the graphics and the staff of the New Zealand Nursing Council for their help and support in locating and analysing the State Examination Papers. Finally mention should be made of the constant support and assistance given by my family and friends during the time this study was being written.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

Nurses in New Zealand are constantly being challenged to expand their scope of practice. They work in new and different health care settings and accept increasing responsibility for the provision of health to society. And yet, there is still debate on the dimensions and the composition of nursing practice. This debate was first clearly identified by Nightingale (1859) who stated:

> It has been written scores of times that every woman makes a good nurse. I believe on the contrary, that the very elements of nursing are all but unknown. (p.2).

Although Nightingale's words were written over a century ago they remain relevant today. If the nursing profession is to endure and meet the challenges of the future, it is essential that nurses study the development of the dimensions of nursing practice and their associated elements.

There are a number of ways in which these developments in nursing practice could be examined. In this thesis the author has chosen to examine constancy and difference in six dimensions of nursing practice and their associated elements, along a time continuum from 1901 to 1981. The twice yearly State examination papers, and articles in the New Zealand Journal of Nursing have been selected for analysis. This two pronged approach allows the author to cross check conclusions reached from an analysis of the examination data over time with trends identified in the journals. In addition, changes in the composition of nursing practice are studied in one specific area (the nursing care of patients with accidental trauma).

The objectives of this study are to:

1. carry out a selective literature review on nursing over the years in order to identify the dimensions of nursing practice common to all areas of patient care; from which the elements of nursing practice are derived;

2. establish the relationship between nursing education; nursing practice and the connective link between them:
   - the nursing examination system;

3. design a framework to act as a basis for the investigative sections of this thesis;

4. identify the historical trends in the elements comprising the six dimensions of nursing from the articles in the New Zealand Nursing Journal between the years 1908 to 1981;

5. carry out an analysis of a sample of the New Zealand State Final Surgical Papers between 1901 to 1981 to identify and examine constancy and difference in the elements comprising the six dimensions of nursing practice;

6. cross check the results of the analysis of examination papers with the data identifying historical trends derived from the Journal articles over a similar time period;

7. consider the six dimensions of nursing practice and their associated elements in one specific aspect of nursing practice - nursing of patients with accidental trauma;

8. identify the historical trends in the elements comprising the six dimensions of nursing practice from the articles in the New Zealand Nursing Journal relating to this area of nursing practice from 1908 to 1981;

9. carry out an analysis of the questions relating to accidental trauma in the sample of State Final Examination questions to identify the elements comprising the six dimensions of nursing practice in this setting;

10. cross check the results of the analysis of examination papers with the data identifying historical trends derived from journal articles over a similar time period.

In the context of this thesis the following definitions are important:

Nursing practice is defined as the sum total of all the activities involved in the interaction between a nurse and a client.

The dimensions of nursing practice are defined as the core components of practice which are common to all nursing work wherever it is carried out and which are stable over time.

The elements of nursing practice are defined as the activities which make up the core components, and which may change over time and with different settings.

The composition of nursing practice refers to the changing elements and patterns of activities which constitute practice.

The content of this thesis has been divided into five sections.

Section 1 incorporates a selective literature review in which the three components of modern nursing (practice, education and research) are identified. Consideration is given to the dimension and elements of two of the components - nursing practice and nursing education - and the relationship between these two components is investigated using the examination system of nursing education as the connective link.

Section 2 sets out the Nursing Education Examination Practice Model (N.E.E.P.) devised for this project. It is described, together with the associated methodology required for the collection and collation of the data.

Section 3 presents the findings relating to the identification and examination of the elements of the six dimensions of nursing practice over time.

Section 4 presents the findings relating to the changes occurring in the elements of the six dimensions identified in nursing care of patients with accidental trauma.

Section 5 contains the conclusions, implications and recommendations for nursing which arise as a consequence of this study.

In order to make this sequence clear for the reader Figure i.i depicts the organisation of the thesis content in diagrammatic form.

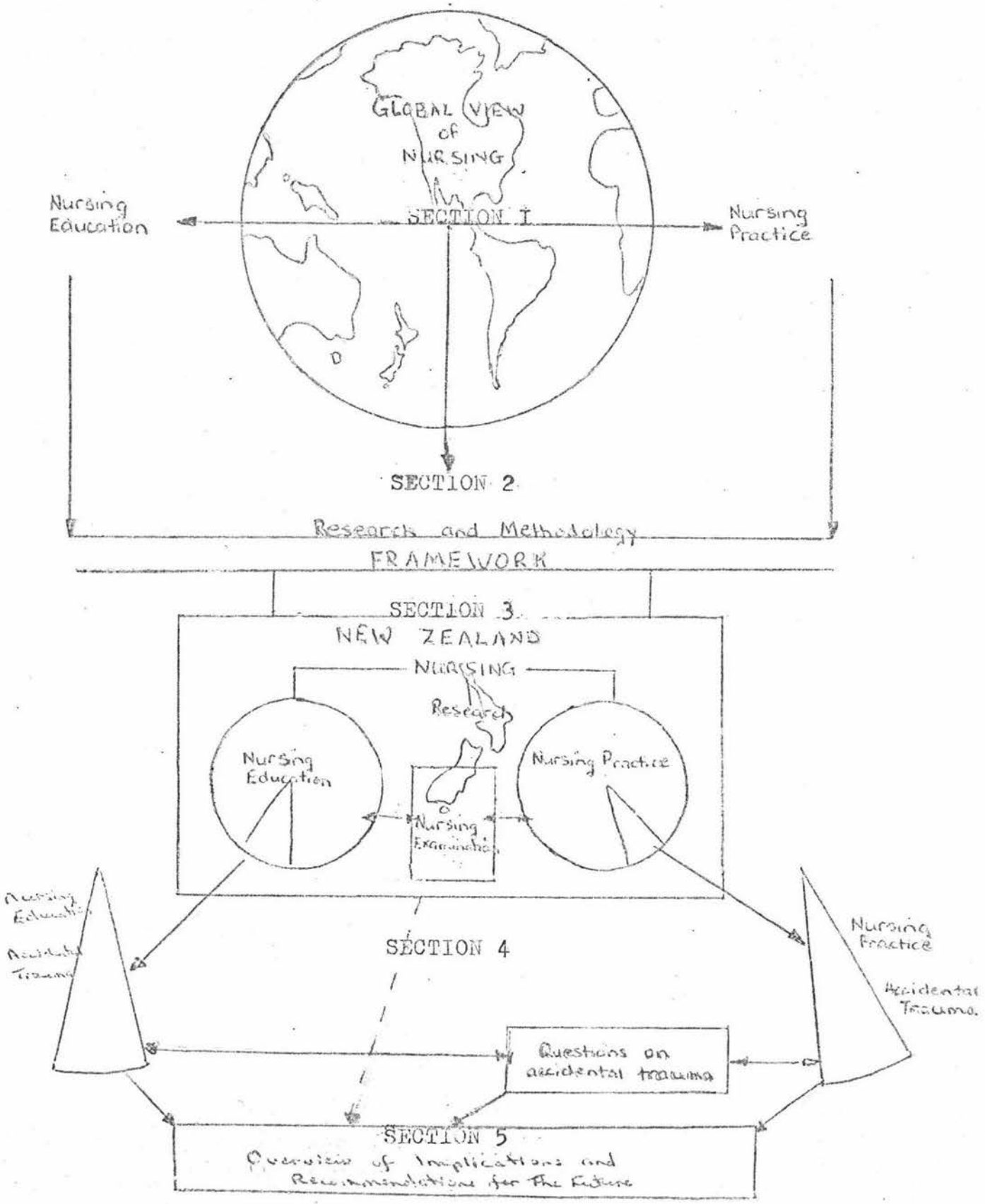


FIGURE i.i: Organisation of Thesis Content

Section 1: Selective literature review

Section 2: Research Design and Methodology

Section 3: Findings relating to the elements of the 6 dimensions of nursing practice over time.

Section 4: Findings relating to changes occuring in the elements of the 6 dimensions in one specific aspect of nursing practice

Section 5: Overview:implications and recommendations.

SECTION 1

This section incorporates a selective literature review in which the three components of modern nursing (practice, education and research) are identified. The dimensions and elements of two of the components, nursing practice and nursing education, are considered and the relationship between nursing practice and nursing education is investigated using the examination system of nursing education as the connective link. The content of this section of the thesis is divided into three chapters.

CHAPTER ONE What is Nursing?

CHAPTER TWO Nursing Practice: Dimensions and Elements

CHAPTER THREE Nursing Education: Dimensions and Elements.

CHAPTER ONE

WHAT IS NURSING?

The increasing complexity and specialisation that has occurred in nursing over recent years has made it imperative, for the dimensions of nursing practice, with their associated elements, to be clearly identified and understood. The purpose of this chapter is to examine a variety of philosophical approaches to nursing and to present nursing practice as one of the three components of nursing.

A conceptual frame of reference for nursing prescribes the nature of nursing and hence the substance of nursing practice, nursing education, and nursing research. Figure 1.1 shows a schematic representation of these three components of nursing and indicates their relationship one to the other.

Bevis states that the purpose of nursing is to promote optimum health (Bevis, 1978, p. 91). A purpose shared with a variety of other health disciplines. Yet nurses provide a "unique" service that differs from that provided by other health care workers. The difference Bevis believes lies:

> not in is purpose, nor in its system... but in its combining of the many components of the nursing process...[into] a service that is unique. (p.92).

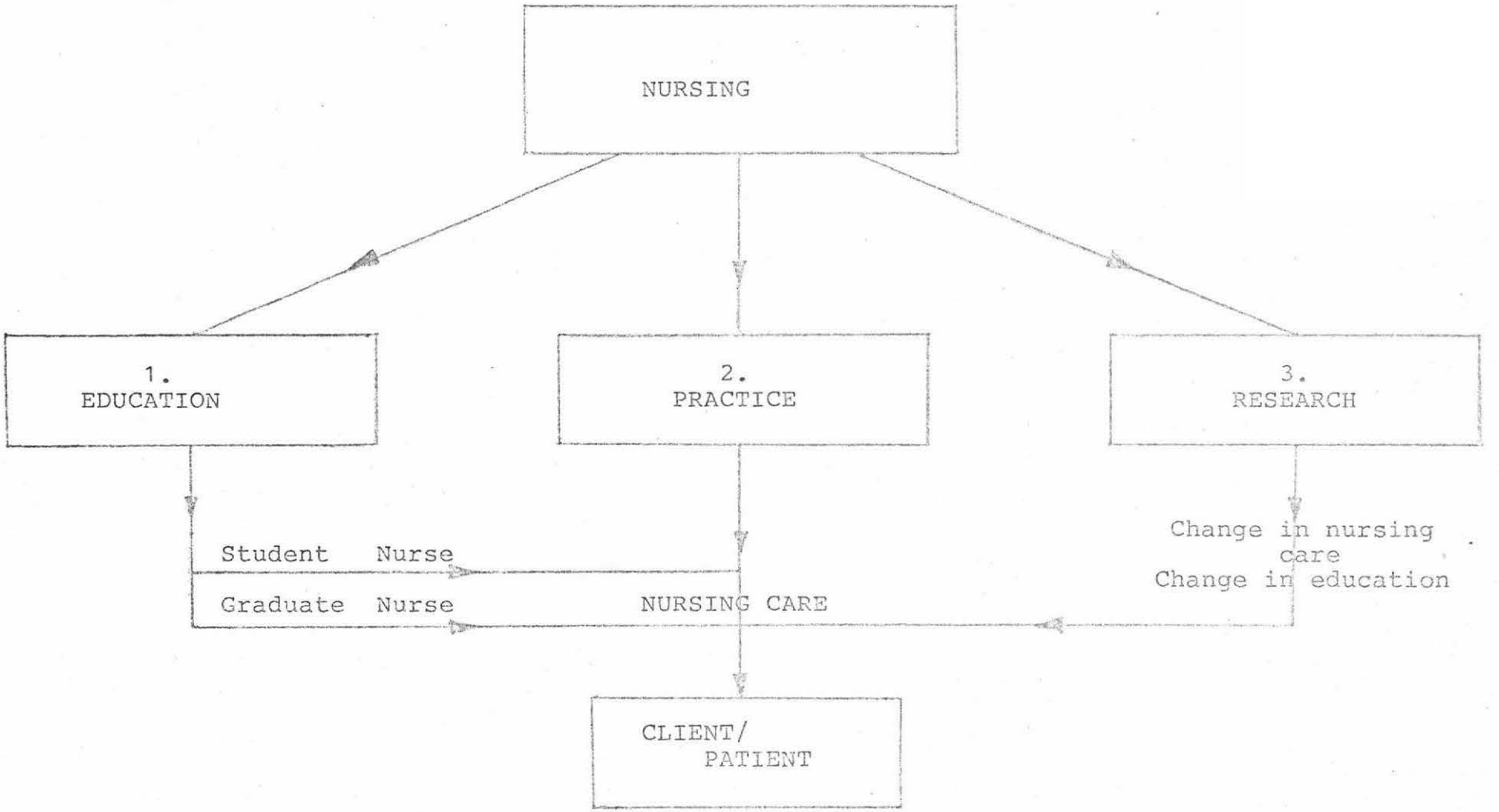


FIGURE 1.1: A Schematic Reproduction of the Three Components of Nursing and Their Relationship to Each Other.

WHAT IS NURSING?

> Nursing as an art to be cultivated and a profession to be followed is modern; nursing as a practice originated in the dim past when some mother amongst the cave dwellers cooled the forehead of her sick child with water from the brook...
>
> (Sir William Osler, 1932,(p.156).

Nursing is as old as mankind. From the time of the first mother down to the present day, history tells of women protecting children and caring for the elderly and sick members of their family. Dolon (1973) believes that:

> nursing evolved as an "Intuitive" response to the desire to keep people healthy as well as to provide comfort and assurance to the sick. (p. 2).

She suggests that the caring, comforting, nourishing and cleansing elements of nursing are derived directly from this desire.

A distinction can be drawn between nursing in the sense of caring for the sick, which historians date back to prehistoric times, and the origin of the profession of modern nursing as we know it today. Modern nursing is said to have begun with Florence Nightingale and the opening of her first School of Nursing in 1860 - less than a century and a half ago. To help identify the dimensions and the elements of nursing practice it is essential to first answer the perennial question - What is nursing? - in order to provide this study with a common frame of reference from which the dimensions and the composition of nursing practice may be determined.

Before examining a variety of nursing philosophies and definitions in order to answer this question, it is necessary to define the words "nurse" and "nursing". In light of the fact that nursing had its origin in ancient times and considering the popular usage of the term "nurse" over the years, it seems strange that the meaning of the words "nurse" and "nursing" should be the subject of continuing debate and still have the power to conjure up such a wide variety of conceptions. The term nurse is a derivation of the Latin word "nutricius" meaning nourishing. The initial use of the word meant to suckle the young. "Nursing" is a derivation of the old English word and its original meaning was the nurturing, protecting care given to a young child by the mother. Over the years the nurturing and protecting concept of this word has been extended to cover care of people of all ages and conditions.

For the purpose of this thesis, a nurse is:

> one who having completed a programme of basic nursing education is qualified and authorised in her country to supply the most responsible service of a nursing nature in practicing health, preventing illness and caring for the sick.
> (W.H.O. Definition, 1971.p.105).

The use of the word "nurse" in this study can be equated with the terms professional or trained nurse. Conversely the term "student nurse" is used to describe a person who

> is studying nursing and who is in the process of preparation to becoming a graduate or professional nurse.
> (I.C.N. Definition, 1934 p.10).

PHILOSOPHICAL APPROACHES AND ASSOCIATED DEFINITIONS

From various philosophies, definitions of nursing have evolved over the years as nurses have attempted to clarify the issue of the nature of nursing. According to Sorenson and Luckman (1979):

> A philosophy may be defined as a set of beliefs and attitudes that direct the behaviour of individuals in the achievement of goals. (p.50).

In short a philosophy provides a point of view upon which to base our actions. A philosophy of nursing not only answers the question "what is nursing?", but also provides guidelines for the practice and teaching of nurses. It enables one to make pronouncements about the dimensions and elements of nursing practice. Bevis (1978) suggests philosophy "answers the question "why" and queries the "worth" of an experience" (p.32). Definitions of nursing on the other hand provide us with direction for the actions we choose.

Every nurse has a personal philosophy and her own private concept of nursing but often the mental images are too blurred or fuzzy to be expressed. The picture needs to be focussed to allow an explicit and precise definition of nursing to be stated. For this reason it is useful to study a variety of nursing philosophies and associated definitions that have been developed over the years. A range of philosophies and definitions written by nurse leaders have been summarised and are presented in Table 1.1. These philosophies and definitions may be expressed in different ways and the emphasis may differ, but commonalities emerge. Bevis (1978) suggests that:

> A unification of some common philosophical elements for all nursing may be a source of power that will help nursing make sense of the world and nursing's place in the world. (p.39).

Similarities and Differences

Table 1.1 sets out eleven definitions derived by the author from the published work of nurse leaders and nursing organisations. There are noticeable similarities and differences.

TABLE 1.1: DEFINITIONS OF NURSING

Nursing Leaders	Definitions of Nursing
Florence Nightingale (1859)	To put the patient in the best condition for nature to act upon him. Nursing ought to signify the proper use of fresh air, light, warmth, cleanliness, quiet and the proper selection and administration of diet - all at the least expense of vital power to the patient. (p.2).
International Council of Nurses (1934)	The essence of nursing broadly interpreted is conservation or vital economy - the safe-guarding and building up of the life forces in the individual and the race. This includes the mixture of both mental and physical energies and the building up of resistance and vigour in healthy and growing individuals as well as those who are ill or ailing. (p.p.16-17).
Lavinia Dock and Isabel Stewart (1938)	To promote and conserve health and prevent disease; protect and care for people's social and physical environment and care for the whole person, mind and body. (p.355).
Hildegard Peplau (1952)	Nursing is a significant therapeutic interpersonal process... It functions co-operatively with other human processes that make health possible for individuals in communities... Nursing is an educative instrument, a maturity force, that aims to promote forward movement of personality in the direction of creative, constructive, productive, personal and community living. (p.16).
Francis Kreuter (1957)	Nursing is a service for the care of the sick, the prevention of illness, and the promotion of health, a portion of which is carried out under medical authority. (p.302).
Dorothy Johnson (1959)	To assist the patient in the maintenance or re-establishment of a moving state of equilibrium throughout the health change process. (p.198).

Virginia Henderson (1961) (Definition adopted by International Council of Nurses 1968)	To assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge and to do this in such a way as to help him gain independence as rapidly as possible. (p.3).
Sister Madelaine Clemence Vaillot (1970)	Nursing does not aim at restoring the patient's biologic integrity but at helping the patient to live as fully as possible. This may mean that the nurses assist the patient to carry out prescribed medical regimes...It can also mean that the goal of nursing is to help the patient reach out for a plentitude of being that is always possible, in spite of biologic limitations against which medicine is helpless. (p.268).
Martha Rogers (1970)	To help people achieve their maximum health potential. Nursing's first line of defence is promotion of health and prevention of illness. Care of the sick is resorted to when our first line of defense fails. (p.42).
Imogene King (1971)	Nursing is a process of action, reaction, interaction and transaction whereby nurses assist individuals of any age, socioeconomic group to meet their basic needs in performing activities of daily living and to cope with health and illness at some particular point in the life cycle. The goal of nursing is to help groups and individuals attain, maintain and restore health. (p.89).
New Zealand Nurses' Association (1976)	The practice of professional nursing means the performance for compensation of any act, the goal of which is to assist the individual and family, regardless of the practice setting to achieve their potential for health. Such practice involves a process which is a systematic, goal-directed, individualised approach to care. (p.10).

Agreement between points of view however, does not imply common methods of implementation. That is, while the dimensions of nursing practice may be constant the elements composing each dimension may differ with time, place, social change and other variables. Six main points of agreement can be identified in Table 1.1.

Similarities in Definitions

1. Nursing the Sick and the Well

Nursing is not, and never has been associated only with the sick or hospitalised. Nightingale (1859) makes just this point when she states that:

> The very elements of what constitutes good nursing are as little understood for the well as for the sick. The same laws of health or of nursing for they are in reality the same, obtain among the well as among the sick. The breaking of them produces only a less violent consequence among the former than among the latter. (p.3).

Nightingale equates the laws of nursing with the laws of health and emphasises the necessity for nurses to search for and identify these laws.

Over one hundred years later Rogers (1970) states:

> Nursing's first line of defence is the promotion of health and prevention of illness. Care of the sick is resorted to when our first line of defence fails. (p.42).

No direct references to care of the sick are found in the definitions quoted from Peplau (1952); from Johnson (1959) or from the New Zealand Nurses Association (1976). However, although nurse leaders may view nursing as the care of the well and the sick, Roper et al (1980) suggest that this view is not supported by the public. This is highlighted by the definition

in the Concise Oxford Dictionary (1976) which states:

> A nurse is a person, usually woman, employed in and usually trained for the care of the sick and infirm. (p.749).

Nutting and Dock (1938) reinforce this point when they state that the word "nursing" was originally used to mean "the nurture and care of the well child" but later came to mean "relief and care of the sick and infirm". Roper et al (1980) also believe that when developments in nursing over the last century are reviewed, it must be accepted that they have mainly been associated with sickness services. So it is not surprising that "nursing" has become synonymous with hospital based, disease orientated systems of health care. Yet an examination of Table 1.1 reveals that none of the definitions of nursing refer to a specific setting in which nursing practice should take place. Therefore, as DeYoung (1980) states the:

> nursing perspective was somewhat misplaced during the turn of the century. A perspective of nursing that focused on illness and utilised a medical model to guide nursing practice was prevalent until the early 1950's. (p.68).

The wheel has now gone a full circle. Since the 1950's there has been a general revival of interest in the importance of nursing the well, to enable them to achieve their maximum health potential. An examination of Table 1.1 shows a common recognition that nursing incorporates the care of people at all stages of the health-illness continuum, from wellness to illness.

2. Nursing Incorporates Levels of Health Interventions

The existence of several levels of health interventions is agreed upon by the majority of nurse leaders. Dock and Stewart (1938); Kreuter (1957); Rogers (1970)

and King (1971) all refer to the need to promote and maintain (conserve) health, prevent illness and care for the sick. Vaillot (1970) mentions the need "to help" the patient to live as fully as possible" (p268). A viewpoint shared with Peplau (1952); Johnson (1959); Henderson (1961) and the New Zealand Nurses' Association Definition (1976).

This inference is supported by Burgess (1978) who describes the four levels of health intervention as:

health restoration
health maintenance
health reorganisation, and
health promotion.

When a person is sick, nursing's aim is to restore health and to alleviate suffering. On the other hand if a person is "essentially" healthy the nurse's work is to maintain health. In health reorganisation a nurse helps people to modify or adapt to the maximum level of health within limitations, while health promotion implies the active marketing of good health practices.

3. Nursing is People Centred

A third point of agreement to emerge from Table 1.1 is that nursing is "people/client centered". All the definitions infer that nursing is centered around people and therefore nursing activities revolve around the needs of people. A fact supported by DeYoung (1980) when she says:

> nursing is a "people" service. Nursing is helping to attain the physical, social, spiritual, cultural and emotional well-being of an individual, family or community. (p.34).

Bevis (1978) further substantiates this point when she advocates that a concern with human welfare is "to act out a belief in the worth of the individual and the worth of life". (p. 41).

4. Nursing is a Social Service

Nursing as a "people service" is concerned not only with individuals, families or groups but also with the society in which a person grows, develops and matures. The recognition that nursing is a social service provides the basis for another point of agreement amongst the nurse leaders.

5. Care-Cure Concept in Nursing

A further point of commonality to emerge relates to the care-cure aspects of nursing practice. Most nurse leaders advocate that nursing practice is distinct from medical practice and support the point of view that the "primary" functions of a nurse relate to the "care" or expressive aspect as opposed to the "cure" or technical aspects. The "caring" activities include such elements of nursing as those activities which Nightingale refers to as the "handicrafts of nursing", and the need to pay attention to the effects of the mind upon the body. Rogers (1970) advocates that nurses must help people to achieve their maximum health potential (p.42). Henderson (1964) believes that the caring elements incorporate the need to meet a person's basic human needs. Thus caring for the patient includes ministering to his needs and wants, providing comfort, support and protection whilst helping him to achieve independence in as short a time as possible. These caring activities are also referred to specifically by Nightingale (1859), Dock and Stewart (1938), King (1971) and Vaillot (1970). Kreuter (1957), Rogers

(1970) and the New Zealand Nurses Association (1976). DuGas (1977) supports this conclusion and advocates that in caring for the patient the nurse demonstrates her care for him as a human being, and also cares about him.

In contrast, the "curing" or technical aspect of nursing is considered to relate to those activities regarding participation in the detection and treatment of illness. Kreuter (1957) refers to these activities as the portion of nursing service "which is carried out under medical authority" (p302). Vaillot (1970) mentions the need "to assist the patient to carry out prescribed medical regimes" (p268). Sorenson and Luckman (1979) advocate a similar point of view for they believe that the nurse is often responsible for carrying out diagnostic tests, therapeutic plans, or is responsible for continually overseeing and assessing the patients needs for medical intervention. Sorenson and Luckman (1979) feel that while it is appropriate for nurses to carry out these secondary (cure) or technical activities, the primary (care) activities must be allowed to predominate. Hall (1980) states that:

> Caring and curing are both fundamental human activities... The two are so allied to the other that it is frequently difficult to distinguish where one leaves off and the other begins. They are like two sides of one coin, each essential to the other but none the less discrete... (p.30).

Figure 1.2 below shows the co-ordination of the nurses care-cure activities in contrast to the doctors care-cure activities.

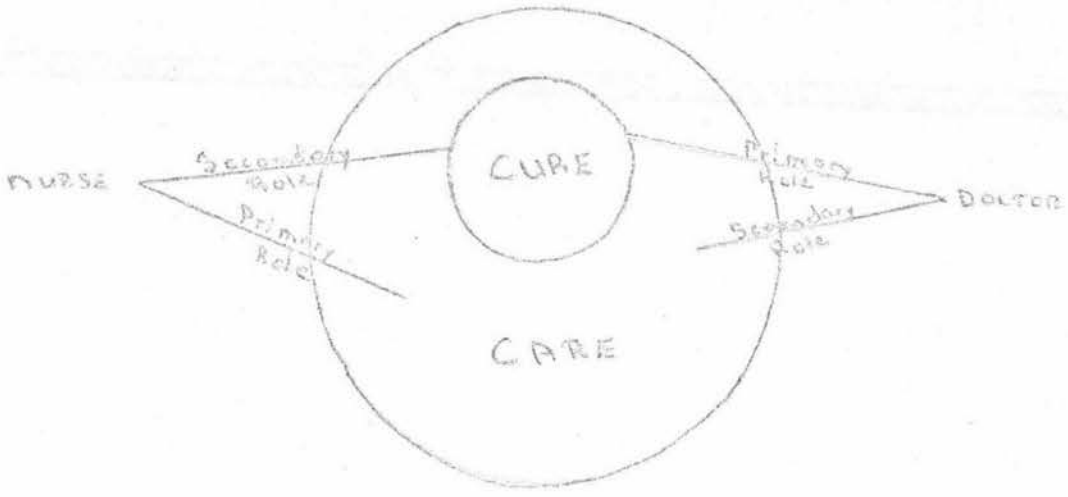


FIGURE 1.2: Reproduced from Sorenson and Luckman (1979) (p.53.)

6. Nursing Requires a Knowledge Base

Another point of common agreement is the stated and implied view that all nursing functions require a cognitive (or knowledge) basis. Bevis (1978) states "nursing actions are natural outcomes of cognitive processes" (p41). King (1971) supports this view:

> Nursing action depends on decision, and decision depends on knowledge and communication skills... nursing action... will vary in proportion to variations in decisions made by each in nursing situations. These variations... are directly associated with differences in knowledge of the natural and behavioural sciences, and in communication and interpersonal skills used... (p. 118).

Nursing is a practice discipline. Its practice is based upon a body of scientific knowledge derived from a variety of scientific approaches. The ability to utilise this knowledge as a basis for practice depends upon one's skill in cognitive activities and related competency in the affective and psychomotor domains of nursing. The emergence of this idea is not new. Nightingale, in her nineteenth century writings stressed the need for nursing practice to be built upon a theoretical base, which requires a liberal education as its foundation.

Differences in Definitions

1. Nursing is a Process

King (1971) and Peplau (1952) both describe nursing as a process. Although this is not a common point of agreement Nightingale herself has suggested that it is essential that nursing continue to progress and keep alert to changes in society so that it (nursing) can continue to exist. Stewart supports this view:

> No system can endure that does not march. Are we walking to the future or to the past? Are we progressing or are we stereotyping? We remember that we have scarcely crossed the threshold of uncivilised civilisation in nursing, there is still much to do. Don't let us stereotype mediocrity. We are still on the threshold of nursing.
>
> (Stewart, 1943, p.138).

2. Nursing Focuses on Interaction

Peplau (1952) and King (1971) both put forward the point of view that nursing focuses upon a set of beliefs that support an interaction framework. Peplau (1952) sees nursing as incorporating a"significant therapeutic interpersonal process (p16). King (1971) describes nursing as a process of action, interaction and transaction" (p89). DeYoung (1980) supports the view that nursing has an interaction focus. She suggests that nursing has especially since the 1970's been described,

> as an interaction between the nurse and the individual in which a therapeutic relationship was used to assist the individual in establishing and maintaining optimal health. (p.28).

3. Nursing is a Profession

The New Zealand Nurses' Association (1976) definition of nursing refers to the fact that nursing is a profession. A question which has proved very difficult to answer (Bevis, 1978).

A glance back through the time spiral at nurse leaders' philosophies and definitions of nursing that arise from them (refer Table 1.1) reveals several similar views but with different time frames. In the following statement King (1971) expresses concisely many of the points of common agreement:

> Nursing is organised to attain, or maintain health in people or restore them to health, or care for the sick and dying.... Nurses help individuals and groups) cope with their state or changes in it when they cannot do this for themselves. Nursing is an integral part of human life from conception to aging. (p.p.125-6).

> Nursing... is action orientated... Action - to be effective, implies knowledge and skills that are applicable in nursing situations. (p.128).

Yet nursing has changed since 1859. New nursing functions and roles have evolved over the years as nursing has endeavoured to meet the health care needs and demands of society. It has therefore been inevitable that some nurses have needed to develop new skills and have required further knowledge and education to enable them to become and remain safe, competent nurse practitioners. None of these changes however detract in any way from the traditional role of the nurse as Skeet (1980) states:

> Today's canvas for practising the art of nursing is far larger than the one upon which Florence Nightingale painted her bold, imaginitive, decisive strokes.... Nursing is organically related to the total health effort and the art of nursing, as in 1859, has, in this latter half of the twentieth century, the aim that all people enjoy their lives with or without

> disability. A difference is that, today, nurses have greater opportunities and improved means by which to achieve that ambitious aim. (p.10).

The dimensions and elements of the three components of modern nursing (education, research and practice) are all derived from these philosophical approaches. In this thesis, the dimensions and elements of two of the components (education and practice) are discussed in detail. These two aspects of practice are then investigated using the examination system of nursing education as the connective link (refer Figure 1.3). For as Cook (1945) states:

> Nightingale made nursing an art and a science; nursing education provides the basis for nursing practice. (p.465).

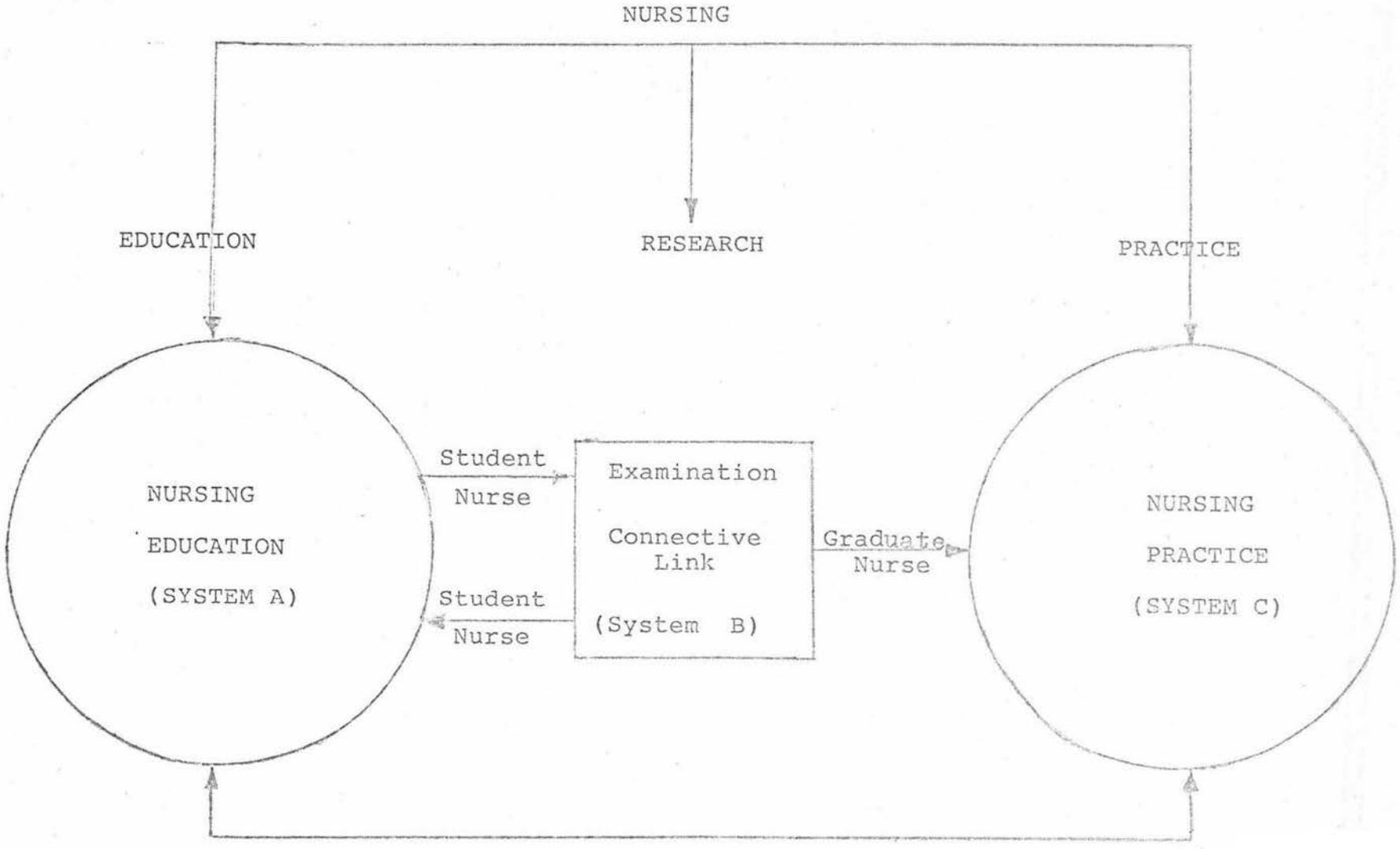


FIGURE 1.3: Schematic Representation of the Three Components of Nursing - Education, Research and Practice

CHAPTER TWO

NURSING PRACTICE: DIMENSIONS AND ELEMENTS

> Nursing is part of many social systems; it arises from and functions within social systems. Nursing is changed by and alters itself in response to constantly changing social forces within a culture; it also influences changes in society and its institutions. (King 1971 p.1).

Nursing services exist to meet a social need and are therefore inextricably tied to social changes. Over the last 150 years nursing has frequently extended its roles and functions, and accepted new responsibilities in an endeavour to meet the needs and demands of society. Roper et al (1980) suggest that the increasing complexity of nursing makes it essential that nursing practice be based upon a solid knowledge foundation. In this chapter, the dimensions and elements of nursing practice are discussed and a nurse practice model designed for use in this study is presented. The chapter concludes with a brief summary of the main points.

THE DIMENSIONS OF NURSING PRACTICE

In Chapter One, six points of agreement among the eleven definitions of nursing were presented. It is considered by the author, that the "dimensions" of nursing practice presented by DuGas (1977) provide a point of view which includes all six points. For example, DuGas (1977) states that:

> In carrying out their responsibilities nurses assist individuals, families and communities in the promotion of health and the prevention of illness: they minister to the needs of the sick, helping them to the fullest restoration

> of health compatable with their illness or providing comfort or support in the event of incurable disease. (p.97).

This statement has a remarkable resemblance to Henderson's (1964) definition, DuGas considers that the scope of the nurses' practice incorporates the four fundamental responsibilities of health restoration; health maintenance; health reorganisation and health promotion, as advocated by the International Council of Nurses (1973).

> The scope of the... nurses practice as outlined in this description of her role implies a much broader spectrum of activities than is represented by the traditional image of the nurse as the ministering angel who soothed the patients fevered brow, changes his linen and dressed his wounds. The nurse still performs many of these activities, but today she is a skilled person who carries out a multiplicity of complex functions. (DuGas, 1977,p.97).

Closer examination of the nurses' activities today reveals that although over the years some aspects of the nurses' role and fundamental responsibilities may have been modified or overshadowed by others; the main directions of nursing practice have remained relatively constant from the inception of modern nursing to the present day (refer Table 1.1). A convenient way of presenting these "dimensions" of nursing is to use the six aspects of nursing practice developed and defined by DuGas (1977):

1) the care dimension - a nurse cares for and about the patient;

2) the cure dimension - nurses participate in the detection and treatment of disease;

3) the protection dimension - nurses protect patients from adverse influences to prevent illness and injury

4) the teaching dimension - nurses give advice and teach on health matters;

5) the co-ordination dimension - nurses co-ordinate activities of other health team members;

6) the patient-advocacy dimension - nurses act as advocates and spokesmen for patients.

The first dimension, "caring" is considered a very important one. Donnelly et al (1980) stress it is essential that nurses retain the "caring" role and learn to incorporate technology and curative elements into that role. In this way nurses can "use technology to its fullest advantages both for themselves and their patients" (p193) while preventing technology from enslaving them. Unfortunately in the first half of this century nurses did allow the ever increasing, highly technical "curative" activities to erode and overshadow the "care" dimension to some degree. But as DeYoung (1980) notes, although nurses yielded many of the caring elements for a time, they are "returning to them as the practice of nursing comes more clearly into focus" (p.28).

Besides the care and the cure dimensions of the nurses role the third constant dimension to emerge is the protection dimension of nursing practice. Nightingale's ecological orientation of nearly 150 years ago stressed the relationship between physical disease, the environment and health. Today the importance of protecting the patient from adverse external and internal environmental factors is stressed, together with the need to support the patients' physiological defence mechanism to prevent disease occurring.

Teaching has always been a vital dimension of nursing and its importance in relation to all levels of nursing interventions is readily acknowledged today. Nightingale (1859) also stressed the importance of the advice and teaching elements of nursing practice. Other aspects of the nurses' role to remain constant over the years

are the co-ordination and patient advocacy roles. Because a nurse is with the patient twentyfour hours a day she has the responsibility to co-ordinate the activities of other members of the health team and to speak on behalf of the patient or direct him to the most appropriate health care personnel to meet his needs. These two dimensions of nursing practice Nightingale included into the nurses need for petty management skills.

For the purpose of this thesis the six dimensions of nursing practice are assumed to be constant in all settings and over time. The categories used for the content analysis of the data are linked with these six dimensions of nursing practice(refer p. 25).

SETTINGS FOR NURSING PRACTICE

Although the majority of nurses now work in hospitals, nursing began in the homes of the sick or on the battlefield. Hospitals only became the main health care setting during the first half of this century. Their development coincided with the growth of complex medical technology and the increase in technical skills. Today the trend is again towards providing nursing care to people in their homes, with the hospital responsible primarily for acute care services and some of the long term and rehabilitative nursing care. Since the middle of this century the scope of the nurse in the community or primary health care setting has been rapidly expanding. While nurses in the community focus on all activities of nursing practice they especially emphasise the illness prevention, health maintenance and health promotion activities.

The nurse practice settings of today may therefore be in an acute care setting such as a hospital, or in a long term care setting which includes hospitals or rehabilitat-

ion centres; or in any of the primary care settings of the home, factory, school, or private practice. Regardless of the type of nursing practice or the setting Burtt (1972) states that:

> Nursing, is nursing, is nursing. The underlying principles of practice are the same, the difference lies in the kind of health problems a person has, his age in relation to his physical and pyschological development, and the setting in which nursing is practiced. (p.118).

THE ELEMENTS OF NURSING PRACTICE

While the dimensions of nursing (refer p.25) may remain constant, over time, there is evidence in the literature that the individual elements of nursing practice are different over time. This is not difficult to understand. There have been marked differences in technology, and in the humanistic approach to the individual, from the Nightingale approach as used in the early 1900's to the definition of the nurses function set out by the New Zealand Nurses' Association in 1976 (refer Table 1.1). These differences are highlighted by the presentation of three contrasting broad categories of elements presented in Table 2.1 in which Nightingale's elements of nursing as stated in 1859 are set out together with "duties of a nurse" as advocated by I.C.N. in 1934 and the functions of nursing described by N.Z.N.A. (1976). It can be argued that variations in the broad categories of the elements of nursing practice are comparatively slight. This does not mean, however that nursing has not changed since 1859, it certainly has changed a great deal.

DuGas (1977) states that:

> From its earliest inception, nursing has had a nurturing quality and this quality is best evidenced in the care aspects of the nurses role... In caring for the patient, the nurse

TABLE 2.1: THREE CONTRASTING BROAD CATEGORIES OF THE ELEMENTS OF NURSING

Nightingale - 1859 (Elements of Nursing)	International Council of Nurses - 1934 (Duties required in general nursing practice)	New Zealand Nurses Association - 1976 (Functions of Nurses)
1) The proper use of - fresh air, light, warmth - clean air - pure water - nutritious food - handicrafts of nursing.	a) Duties concerned with keeping people well.	1. Observation, assessment and analysis to constitute diagnosis;
2) Attention paid to effect of body upon the mind and idiosyncrasies of patient.	b) General nursing care of sick people.	2. planning, implementation and evaluation of nursing care;
3) Observation - vitally important.	c) Household sanitation and domestic economy.	3. case finding;
4) Protective and preventive methods.	d) Organisation and management of sick room - in hospital or home.	4. health teaching;
5) Nursing the sick and the well.	e) Equipment and supplies.	5. health counselling;
6) Petty management - co-ordinate care - patients friend.	f) Food and diet.	6. the implementation of treatment provided by a licensed physician and
7) Advice and teaching.	g) Medication and drugs.	7. the systematization and development of nursing knowledge
8) Cure aspects - treatments, medicines, surgical appliances.	h) Therapeutic treatments.	
9) Body of technical skills and procedures.	i) Observation of patients, reporting and recording.	
10) Knowledge base.	j) Social and personal adjustments.	
11) Philosophy of nursing and code of ethics.	k) Teaching and guidance.	
12) Rules and precepts related to hygiene and sanitation.	l) Professional adjustments.	

> assists him in carrying out those activities that he would normally do for himself if he were able. (p.98).

In the middle of the last century Nightingale deplored the fact that nursing was considered little more than the administration of medicine; the application of poultices and the provision of the basic hygiene needs. Nightingale (1859) subsequently became the first person to define the elements of nursing which together make up what is defined in this thesis as "the care dimension".

It is readily acknowledged that nursing today differs in some respects from Nightingale's day. Nurses are expected to perform many tasks that were formerly done by doctors and they must be familiar with equipment and technical procedures that have evolved since Nightingale's time.

Automation has also affected the elements of nursing practice over the years. Thus althcugh the broad categories of elements (refer Table 2.1) may appear unchanged, the way in which these activities are carried out may have altered. One example is seen in the activities associated with recording observations. Nurses today are assisted by a variety of monitoring devices which augment their observational skills.

The increasing complexity and specialisation of health care and advances in medicine have led to different emphasis being placed upon the broad categories of elements. Changes in the organisation and structure of the health team as a result of the health team concept and the use of an increasing number of auxillary personnel have also had an effect upon the dimensions of nursing practice and their associated elements over the years. DeYoung (1980) suggests that over the years nurses may have yielded

some of the "basic" nursing activities but as the practice of nursing has been more clearly defined over the years they have returned to them. The question that remains to be answered is which of the numerous elements that comprise the six stated dimensions of nursing practice have remained constant amidst the environmental, technological and social changes over the years. It is the purpose of this study to examine constancy and differences in the stated dimensions and their associated elements along a time continuum from 1901 to 1981.

Every nurse requires a conceptual basis for practice. The Nurse Practice Model (Figure 2.2) represents one type of conceptual framework. This model has been designed by the author for use in this study. It incorporates the "setting" concepts described by Bullough and Bullough (1977) and the six dimensions of nursing practice identified by DuGas (1977). It is a systems model, the central focus of which is the patient/client. Immediately surrounding the inner patient/client core of the model is a circle containing the six dimensions of nursing which are identified with those defined earlier in this study. The circle incorporates the elements of nursing distributed within the six dimensions of nursing practice.

1) care
2) cure
3) protection
4) teaching
5) co-ordination
6) patient advocacy.

The outer circle represents the settings in which nursing is practiced. The acute care, long term care and primary health care settings.

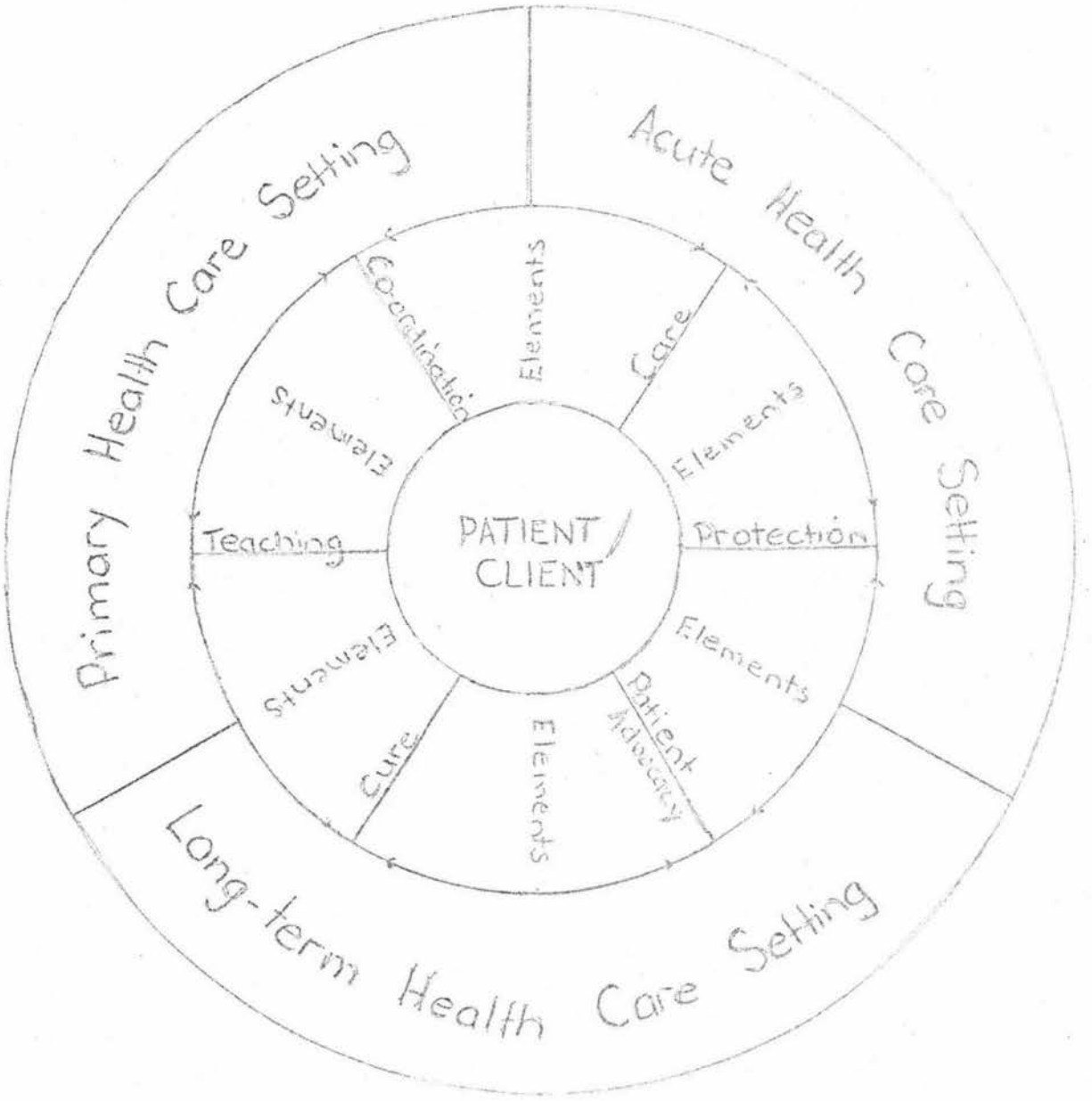


FIGURE 2.2: The Nurse Practice Model and its Components (Rayner, 1982).

> Acute care consists of those services that treat the acute phase of illness or disability and has as its purpose the restoration of normal life proceses and functions.
>
> (Bullough and Bullough, 1977, p.21).

In comparison:

> Long-term care consists of those services designed to provide symptomatic treatment, maintenance and rehabilitation services for patients of all age groups in a variety of (long-term) health care settings. Provision of this care... should be based upon the needs and resources of the patient and the readiness of the family to participate in the plan of care.
>
> (Bullough and Bullough, 1977 p.22).

While:

> Primary care refers to the health approach which integrates at community level all the elements necessary to make an impact upon the health status of the people.... It is an expression or response to the fundamental human needs of how can a person know of, and be assisted in the actions required to live a healthy life, and where can a person go if he/she needs relief from pain and suffering; and which can assist in improving the living conditions of individuals, families and communities.
>
> (World Health Organisation Definition: Mahler 1975 p.3).

Bullough and Bullough (1977) suggest that the nursing dimensions contained in the middle circle of the model "are not mutually exclusive" (p.13) for they are relevant to all areas of patient care. While this is accepted, the author believes that the composition of the elements making up these dimensions may change over time and with specific nursing practice focus. For this reason the middle circle of this model is not considered a fixed entity to enable it to revolve around the other two static circles.

SUMMARY

The content of this chapter has been organised to identify the dimensions and elements of nursing practice.

For the purpose of this thesis the six dimensions of nursing practice are considered to have continued to be an integral part of nursing over the years, although the elements making up these dimensions may have changed. Paralleling these changes there has also been an increase in the knowledge available for use in nursing. Besides affecting nursing practice, the changes together with the knowledge explosion have continued to influence the education programmes that prepare nurses for practice. For as King (1971) states:

> The basis for the practice of nursing is knowledge; its activity is guided by the intellect, and its intellectual activity is applied in its practical realm....Communication of knowledge and the application of knowledge in the practice of nursing on the real world are essential components of the educational programmes for nursing. (p.113).

CHAPTER THREE

NURSING EDUCATION: DIMENSIONS AND ELEMENTS

In this chapter, the relevance of nursing education to this study is examined; the dimensions and elements of nursing education are discussed; a nurse education model designed for use in this study is presented and the relationship between nursing education and nursing practice is investigated using the examination system of nursing education as the connective link. The chapter concludes with a brief summary of the main points presented.

NURSING EDUCATION

"The basis for the practice of nursing is knowledge... " (King 1971, p118). All nursing action depends upon knowledge. People who choose to become nurses undertake an education programme designed to provide them with the theory and practice skills required by a nurse practitioner.

Florence Nightingale was one of the first people to recognise the need to provide a planned education programme for nurses. In 1860 she established one of the first schools of nursing at St Thomas' hospital in London. In support of the need for nursing education she wrote:

> An uneducated man who practices physics is justly called a quack, perhaps an imposter. Why are not uneducated nurses called quacks or imposters? Men cannot understand medicine and nursing by instinct but people think that every woman is a nurse by instinct.
> (Nightingale 1959, p.108).

As Donnelly et al (1980) point out "the most radical innovation" of Nightingale's education plan was the fact that she recognised the need for a scientific foundation for nursing practice. From its inception the Nightingale

education programme, as used in the early 1900's, combined the concept of adequate practical experience with the theoretical components. To Nightingale, education and practice were equally important aspects of a student nurse's curriculum if she were to attain proficiency. This view is fully supported by nurse leaders today such as Orem (1980) and Stevens (1979), on the premise that nursing is a "practice discipline" therefore knowledge must be able to be applied. According to Stevens (1979) "Nursing education is necessarily education for the purpose of action" (p.161).

The following definition of education is accepted for use in this study. The term education is defined as:

> helping individuals to use all their powers and capabilities in meeting the problems of life and adjusting to its changing conditions.
> (I.C.N. 1934, p.10).

Thus education is seen as having a far broader meaning than either training or discipline.

The primary objective of all basic nurse education programmes is to prepare nurses to meet the current and future challenges of nursing. The increasing complexity and specialisation occurring in nursing practice over the years, makes it essential that student nurses should be educated to practice nursing in an increasing variety of health care settings. Thus the need for the dimensions and elements of nursing practice to be identified is of paramount importance if nurse educators are to ensure that our future nurse practitioners acquire the correct knowledge, attitudes and skills. Student nurses need to gain a thorough understanding of the dimensions of nursing practice and their associated elements, as they are relevant to all areas of patient care.

Not only do the dimensions and elements of nursing practice need to be identified within a curriculum, but nursing education possesses its own dimensions and its own elements. Chater's model (Figure 3.1) illustrates this. The philosophical approach is represented by three interlocking inner circles. These three components, the setting, the knowledge and the student, all influence each other. Yet, as Chater (1975) states:

> each component is sufficiently independent to contain separate conceptual frames of reference (p.436).

For the purpose of this study the knowledge component is further delineated. Inside the knowledge component is a triangle each side of which represents one of the three student behaviours which constitute the learning behaviour domains. They are the cognitive (knowledge); affective (attitudes) and the psychomotor (skill) domains.

DIMENSIONS OF NURSING EDUCATION

These have already been depicted in Chaters model (Figure 3.1). For the purposes of this thesis the words "domain" and "dimension" have been equated.

As Parkinson (1978) states "nursing education is concerned with each of the three domains" (p.14) which may be described in the following manner. The cognitive domain includes knowledge, understanding and thinking activities. Stevens (1978) states that the cognitive domain includes:

> all the information that the nurse learns as background to her functioning... so that she will have enough information with which to make accurate judgements. (p.161).

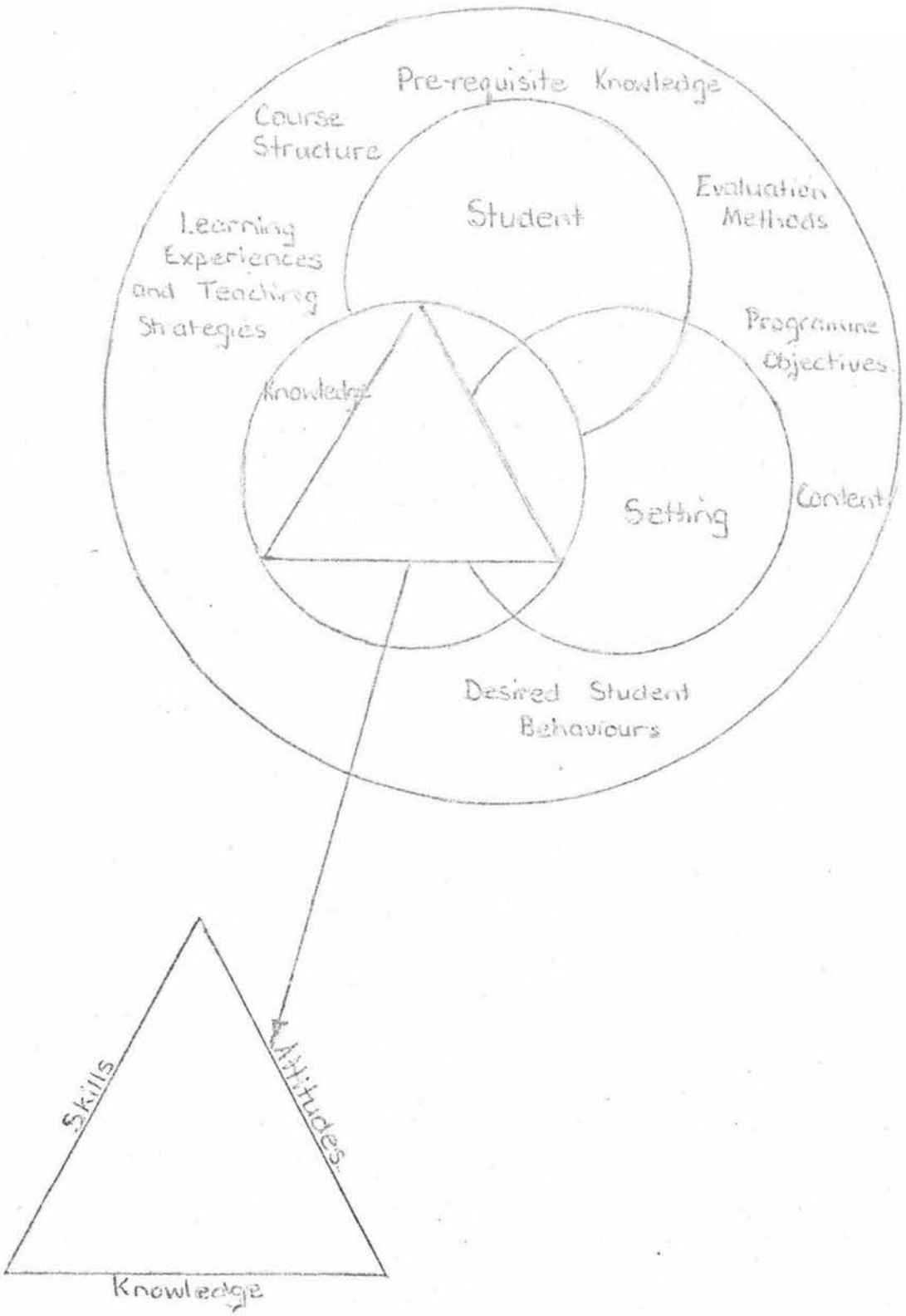


FIGURE 3.1: Nursing Education System Models adapted from Chater's model (1975).

This knowledge may relate to the physical, behavioural, or social sciences, medical procedures, nursing skills, or patient diagnosis. A broad knowledge base must be gained if a nurse is to attain and maintain competence. Furthermore this knowledge must be able to be applied in nursing practice.

The affective domain sometimes called the "attitude" domain includes activities relating to feelings, emotions, interests, attitudes and appreciation aspects of nursing. Some educators believe that the affective domain aspects of nursing are outcomes of the cognitive domain, others suggest that affective aspects must be specifically taught. The affective process according to Reilly (1975):

> refers to that inner growth of the individual by which he develops a value system which guides his behaviour in making choices for action. (p.61).

Because nursing is patient centered the affective domain is equally as important as the other two domains.

The third domain is that of psychomotor skills. Because nursing is a practice discipline which offers a service to society it is essential that nurses attain competency and safety in these skills. As Stevens (1979) points out, the practical aspects of nursing "require varying degrees of skill and accuracy depending upon their complexity" (p.160).

Each domain should receive equal emphasis in the basic education programme. At times throughout the century one domain has perhaps been given too much importance in the programme to the detriment of one of the other domains. For instance the psychomotor skills were emphasised early this century when nursing was seen as consisting chiefly of procedures and techniques. Conversely in later years they were relegated to third place behind

the cognitive and affective domains as nursing has increasingly emphasized the importance of its theoretical base. Thus over the years the mix may have differed but the three domains have always been important in nursing practice.

> Communication of knowledge and the application of knowledge in the practice of nursing... are essential components of the educational programme for nurses. (King, 1970, p.113).

THE ELEMENTS OF NURSING EDUCATION

The specific content of the nursing curriculum varies with time, place, society, culture, technology and a number of other variables. It is argued that the elements that comprise the content of a nursing curriculum must be the same elements that constitute nursing practice. Moreover, the same variables should affect their specific nature and degree at any point in time.

In all education programmes a curriculum must be devised in order to ensure that the many composite parts of a student nurse's learning requirements go together and enable the achievement of the stated educational goals. As Bevis (1978) states:

> The curriculum is the learning activities that are designed to achieve specific educational goals.... The purpose of curriculum building in nursing is to provide learning experiences that will enable students to develop nursing behaviours that promote the greatest possible health for every individual in society. (p.16).

From the turn of the century finding ways of meeting and keeping up with the changing requirements for nursing practice has been a continual challenge for nurse educators.

Curriculum have been gradually expanded to include a broader base in general studies in the humanities, technical and social sciences, and in leadership and management. Traditional biological and medical science content has been extended and has undergone a change of emphasis in the nursing programmes. As Bevis (1978) suggests "the twentieth century scientific and technological knowledge explosion "has forced educators everywhere to re-examine their curricula" (p.2). Changes in society have had a definite impact upon nursing education.

Longway (1972) in her study of planned curriculum content from the Nightingale era to the present time, identifies six ways in which the content of nursing has been progressively organised. They are;

the Folklore Era - by which would be nurses were introduced to nursing lore by word of mouth and by watching others;

the Nightingale Era - when nursing content was organised around three focal points; (1) technical skills; (2) environmental control and hygiene and (3) a philosophy of nursing and a code of ethics;

the 'Local Pathology' Era in which content was organised around diseases;

Patient-Care Area Approach when content was organised according the patient care area to which it related.

Body System Approach - with the organisation of content around the body-system

The Person-Centered Curriculum - in which the "person" emerged as the focal point.

Although these progressive reorganisations of the content of nursing have emphasised changes in the nursing programmes over time, Longway (1972) suggests that the three content areas of the Nightingale School remain essential content today (p.118). The content of succeeding eras being superimposed upon this era, rather than replacing it.

Nurse educators have for a long time recognised the need to develop and improve their curriculum content and to alter the organisation and administration of the nursing curricula. In the words of Chater (1975):

> Curriculum directors, curriculum committees, and faculty probably feel they are running at least twice as fast to keep up with the acquisition, organisation, and utilisation of knowledge. As society dictates changes in the curriculum and students make their needs known, faculty feel caught in the nightmarish impasse of how to add more to the curriculum within the constraints imposed .... (Thus) curricula have become increasingly additive in order to be ameliorative. (p.428).

Parkinson (1978) comments that the quality of nursing service offered to a community is dependent upon the quality of nursing education supporting it (p.6).

Indeed Donnelly et al (1980) believe that a nursing curriculum should "serve as a template or pattern from which the nurse expands the theory and knowledge base". (p.169).

So students should be educated in a manner to ensure that they are intrinsically motivated to seek new knowledge. Furthermore it is necessary that all nurses have a thorough knowledge and understanding of the dimensions of nursing practice for they are common to all areas of nursing and relevant to all patients. Nursing practice and nursing education are closely related and it is essential that they support and enhance each other. According to Stewart (1949):

> Although professional educators today might differ in their phraseology, they would find much in the Nightingale philosophy of education they could heartily endorse. The concept of education as growth, the emphasis on experience and on the principles of self-activity the recognition of individual differences and needs, the insistence on constant purpose and freedom of choice, the role of interest and personal satisfaction in the

> learning process, the concept of discipline as self direction and self-control - all these indicate an essentially modern and progressive point of view. (p.1216).

RELATIONSHIP BETWEEN NURSING EDUCATION AND NURSING PRACTICE

In Figure 3.12 the nursing education system (A) and the nursing practice system (C) are shown as two components of a Nursing Education, Examination anc Practice inter-systems model. (The N.E.E.P. model). Each system has an input, a process and an output . They also have the other two characteristics of systems; that is self regulation and equifinality.

The vital connecting link between the two components is provided by the examination connective system (B). Each student nurse must pass through this system in order to practise nursing. The purpose of the examination system is to evaluate each student nurse to determine whether she/he has attained the minimum criteria for practice and is therefore acceptable to the profession.

NURSING EXAMINATION CONNECTIVE SYSTEM

The issue of entry to practice is an important one. As Reilly (1975) states, the nursing education programme acts as "gatekeeper to the nursing profession" (p.18). It determines who will enter and complete the programme, as well as the "what" and "how " dimensions of the nurses preparation. It does not however determine competency to practice in relation to a minimum national standard. That is a matter for the profession itself to determine. As Darby (1970, p.11) states, the nursing profession has the responsibility to ensure maintenance of "standards of proficiency and competency within the profession".

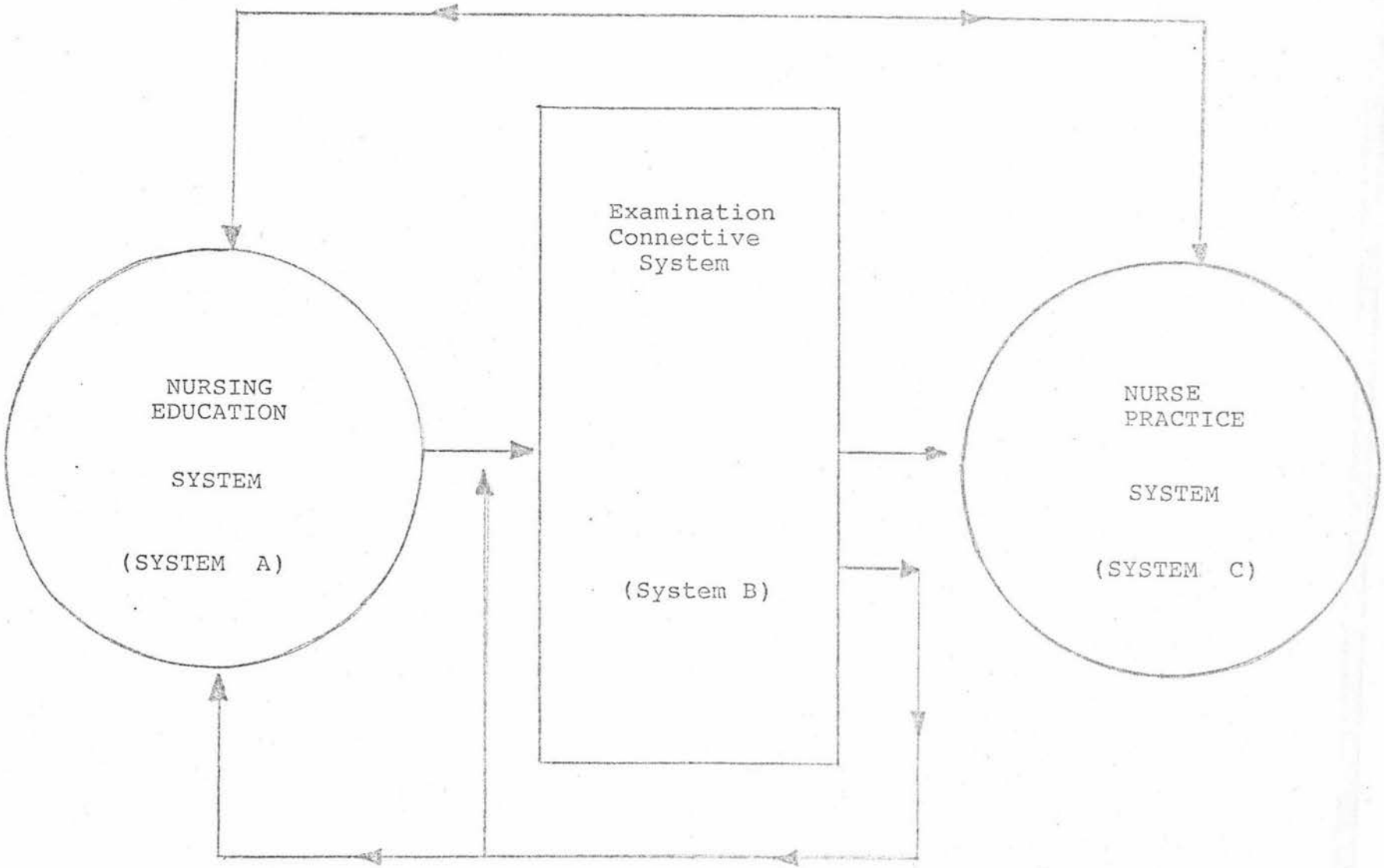


FIGURE 3.2: A Schematic Representation of the Relation between the three systems - nursing education, examination system and the nurse practice system - The N.E.E.P. model.

Thus over the years two sets of criteria have evolved to safeguard the profession and the public from incompetent or unscrupulous nurses. Firstly each country/state has established Boards or Councils of Nurses who are empowered by their governments to set rules for the regulation and approval of nursing schools in their area and to ensure that they at least meet the minimum requirements of that state.

The second set of criteria which particularly pertains to this study, relates to the registration of a nurse following completion of an approved basic nursing education programme, together with the attainment of a satisfactory pass in the State Final Nursing Examination. Thus the State Examination acts as an "indicator" of fitness to practice nursing and has become one of the chief criteria by which a student nurse's readiness to pass from the nursing education system (A) to the nurse practice system (C) is ascertained. Therefore the examination system of nursing education forms the connective link between nursing education and nursing practice.

The education system (B) has an input; a process and an output. The process component of the examination system - known as the conversion process - consists of two phases, (refer Figure 3.3). Upon entering the first phase of the conversion process the nursing student encounters the examination questions set by the New Zealand Nursing Council. During this phase the student activities include the three subprocesses of cognition, synthesisation and actualisation. Once the student has completed her written answers to the examination questions, phase two of the conversion process is commenced. In this phase the "controller"; that is the person(s) appointed by the Nursing Council to determine whether the students' examination answers meet the established acceptable criteria, begins her activities of validation and evaluation of the examination answers.

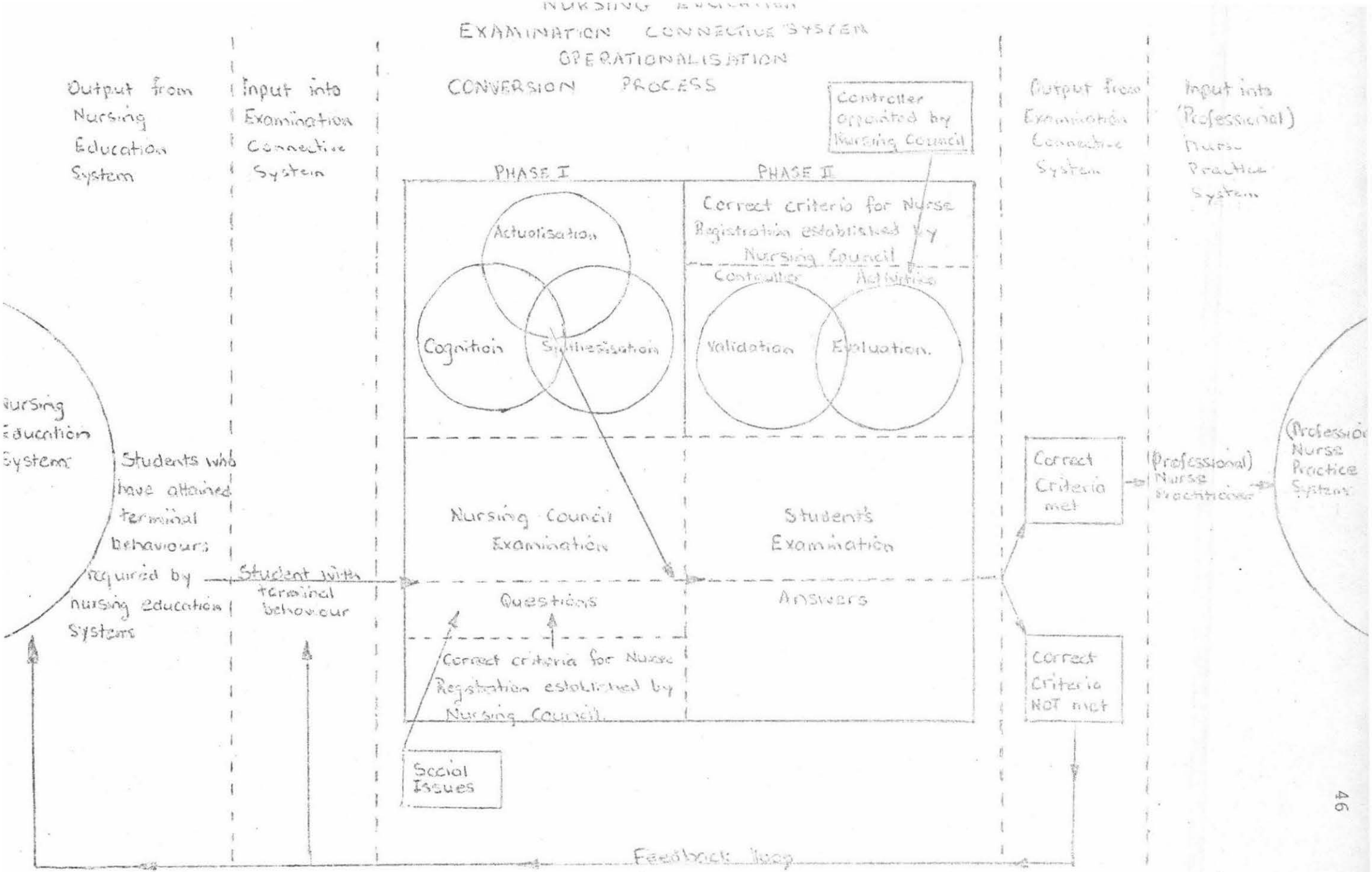


FIGURE 3.3: Examination Connective System.

Once the controller has made his/her decision pertaining to the students' answers the student nurse exits the examination model conversion process by one of two routes. Providing her answer has met the established acceptable criteria - that is, she has shown written evidence of her ability to practice nursing with safety and competence - the student nurse moves to the output component of the examination system. The student nurse is then eligible to become a professional nurse practitioner and is entitled to receive her nursing registration and gain entry into the nurse practice system (C). Thus output of the examination system (B) becomes the input of the nurse practice system (C).

Should the nurse fail to meet the established acceptable criteria then she exits the conversion process via the feedback loop and one of three options are open to her/him. Firstly, she/he may immediately re-enter the input component of the examination connective system and be eligible to sit another State examination in six months time. Secondly, she may return to the nursing education system (A) to gain further cognitive, affective and psychomoter skills prior to re-entering the examination system. Alternatively she/he may be required to exit from the N.E.E.P. Intersystems Model altogether. In New Zealand this model has in reality been operationalised twice every year since the inception of the State Final Nursing Examinations in 1903.

In order to maintain the minimum standards acceptable for entry to the profession each examination set must reflect the "correct criteria" to indicate "fitness for nursing practice" as perceived by those responsible for controlling the standards of the profession. Furthermore if nurses are to meet the required criteria and become safe and effective nurse practitioners then as Brown (1970) says:

> the educational programmes must be consistant with the expressed and perceived needs of the community. (p.21).

Cameron (1957) states the basic nursing curriculum:

> "must be planned to ensure that it keeps pace with the changes in nursing practice" (p.149).

Should several student nurses from a basic nursing education programme fail to be admitted to practice for inability to meet the minimum standards acceptable for practice, then questions must be asked about the programme's relevance to the minimum practice and educational standards for the level of nursing involved in a particular country or state.

Just as the profession must ensure that its education programmes are adapted to meet the changing needs of nursing practice and society, it also has a responsibility to ensure that the registration examinations reflect these changes in order to maintain the minimum acceptable standards of practice. But, as Green (1974) says.

> As the health needs of society become more complex, the educational programme of professionals prepared to meet these needs must keep pace. Criteria and standards for professional excellence must change to reflect these needs. But change in standards is not enough. A solid research base for change is essential. The rationale for periodic change in (registration) criteria should not be founded on trends, popular issues and fund-getting gimmicks. Professionals participating in the formulation and adaption of new criteria for (registration) must be held accountable for the data base upon which change is made. (p.9).

Thus the importance of the third main component of nursing is apparent. Changes in both nursing practice and nursing education should evolve from the findings of nursing research. For in the final analysis, it is nursing

research that makes the final judgement. In the past, most nurses knew through experience what would or would not work. But, a profession relying totally on intuitive nursing practice is no longer acceptable in a technological, scientific health service. A concentrated effort is being made by nurse leaders to emphasise the importance of research in all areas of nursing. As DeYoung (1980) advocates:

> Research in nursing will strengthen nursing as a profession, but, more important, it will change nursing practice to improve the quality of patient care. (p.136).

Lysaught (1974) believes that in such a way nursing education and practice can establish relationships that support and enhance each other and are relevant and acceptable to societies needs. As Reilly (1975) suggests "not only must nursing evolve according to societies needs and demands but "it must also develop and utilise systematic approaches to quality control to assure that its practice meets prescribed standards" (p.18).

> Nursing and preparation of nurses for registration are complex and have far reaching implications, with many facets reflected in a broad spectrum, extending from individual nurses to international aspects, from the patient to the Health Service, from the ward team to the hospital team and from the nursing profession to other professions...In general the preparation of the nurse must be realistic so that she is a competent and safe person to meet the needs of the patient (p.288)... In considering all aspects of the general (and obstetric) nurse the changes in the national social pattern (must) not be overlooked. Fawkes 1970(p.266).

SUMMARY

In such a rapidly changing environment it is not difficult to understand why nurses are still taking up Nightingale's challenge and are continually debating the dimensions and composition of nursing practice. Furthermore while the dimensions of nursing practice may have remained constant over time (refer p. 25) there is evidence in the literature to suggest that the elements of nursing practice are different (refer p. 28). The rapid expansion of knowledge and increased specialisation in nursing make it even more important that nurses are able to identify the elements of nursing practice relevant to all areas of patient care right from the beginning of their education programme.

In this chapter the relevance of nursing education to this study has been discussed and Chater's model has been used to examine the dimensions of nursing education. The relationship between nursing education and nursing practice has been set out and the connective link between the two systems - the examination system - established.

Thus the three chapters of this section (1) have presented a selective literature review in which the dimensions of nursing practice and nursing education have been identified and from which the elements of nursing practice will be derived in the methodological section of this thesis.

SECTION 2

In this secton the Nursing Education Examination Practice Model devised for this project is described in detail, together with the associated methodology required for the collection and collation of the data.

Chapter Four DESIGN AND METHODOLOGY

CHAPTER FOUR

DESIGN AND METHODOLOGY

> Methodology is fundamentally a matter of communication... part art, part logic, and part technology.
>
> Depres 1968 (p.3).

In this chapter the design and the methodology used for the investigative section of this thesis are presented.

PURPOSE

At this stage it is appropriate to reiterate the purpose of this thesis as stated on(p.1).

The author has chosen to examine constancy and difference in six dimensions of nursing practice and their associated elements, along a time continuum from 1901 to 1981. The twice yearly State examination papers, and articles in the New Zealand Journal of Nursing have been selected for analysis. This two pronged approach allows the author to cross check conclusions reached from an analysis of the examination data over time with trends identified in the journals. In addition, changes in the composition of nursing practice are studied in one specific area; the nursing care of patients with accidental trauma.

PROPOSITIONS

The following propositions have been derived from the review of the literature presented in the first three chapters:

1. that the six dimensions of nursing practice (care, cure, protection, teaching, co-ordination and patient advocacy will remain constant over time and different practice settings[1];

2. that the elements of each dimension will vary with time and with the practice setting.

DESIGN

The model used in this section of the thesis arises out of the intersystems model presented on p.44 (Chapter 3). In this chapter, the dynamics of the Nursing Education Examination Practice Model are set out (Figure 4.1) and the components of the three systems are portrayed in detail. Each system influences the other and each is influenced by changes occurring in the environment.

The three dimensions of the nursing education system (A) together with the six dimensions of the nursing practice system (C) combine to form the nine "functional" components of the N.E.E.P. intersystems model. These nine functional components are used in this study to provide direction to the collection and collation of data. The relevance of these nine functional components has already been established in the first section of this study (refer pp.31 & pp. 37).

Figure 4.2 represents the application of the model set out in Figure 4.1. Here the objectives of the investigation can be clearly seen. These are:

a) the analysis of the state examination papers using system B of the N.E.E.P. model;

b) the identification of historical trends from the journal articles using systems A and C of the N.E.E.P. model;

[1] In this study different practice setting refers to one specific aspect of nursing practice - the nursing care of patients with accidental trauma.

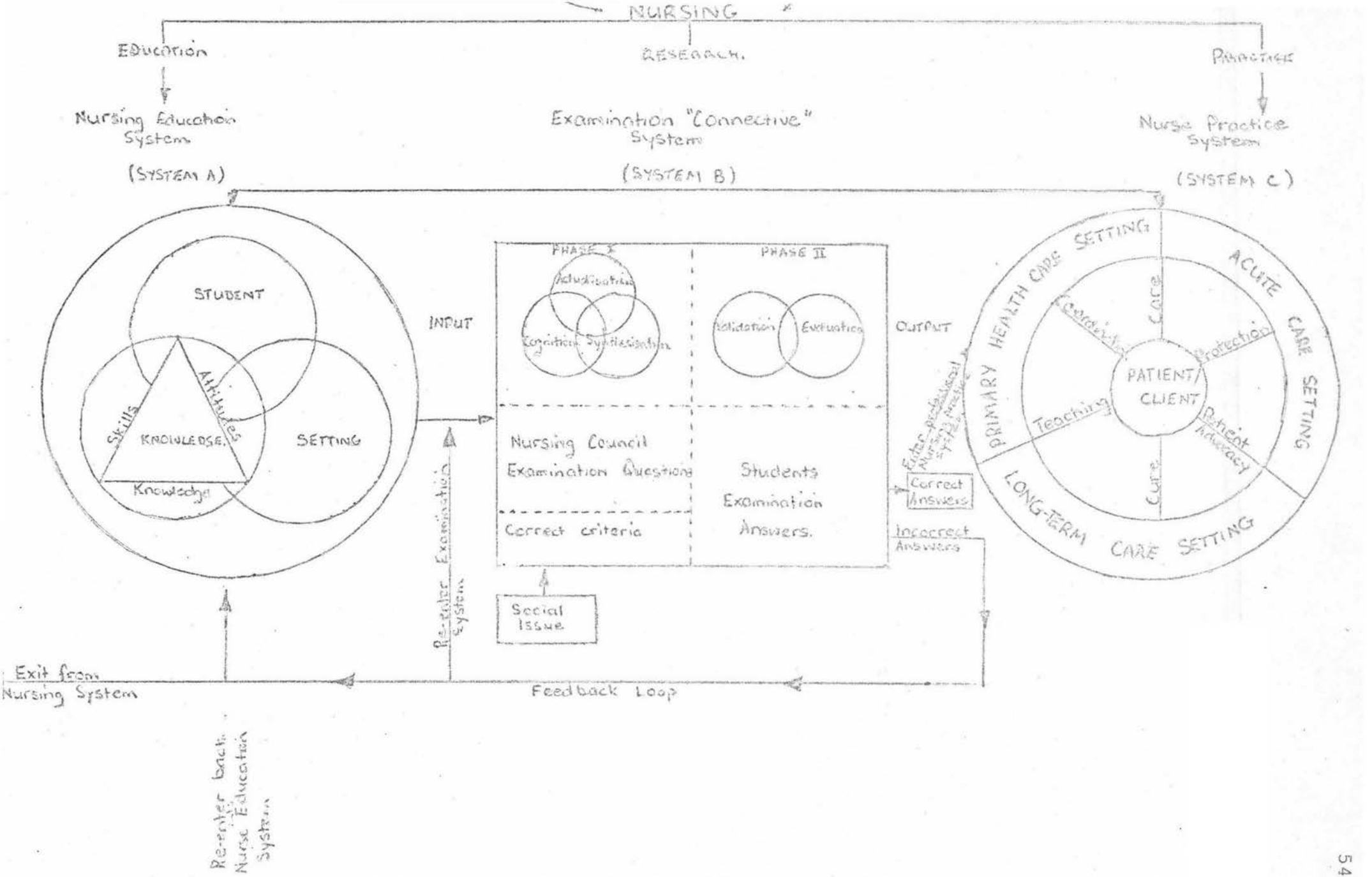


FIGURE 4.1: Intersystems Nursing Education Examination: Practice Model (N.E.E.P. Intersystems Model).

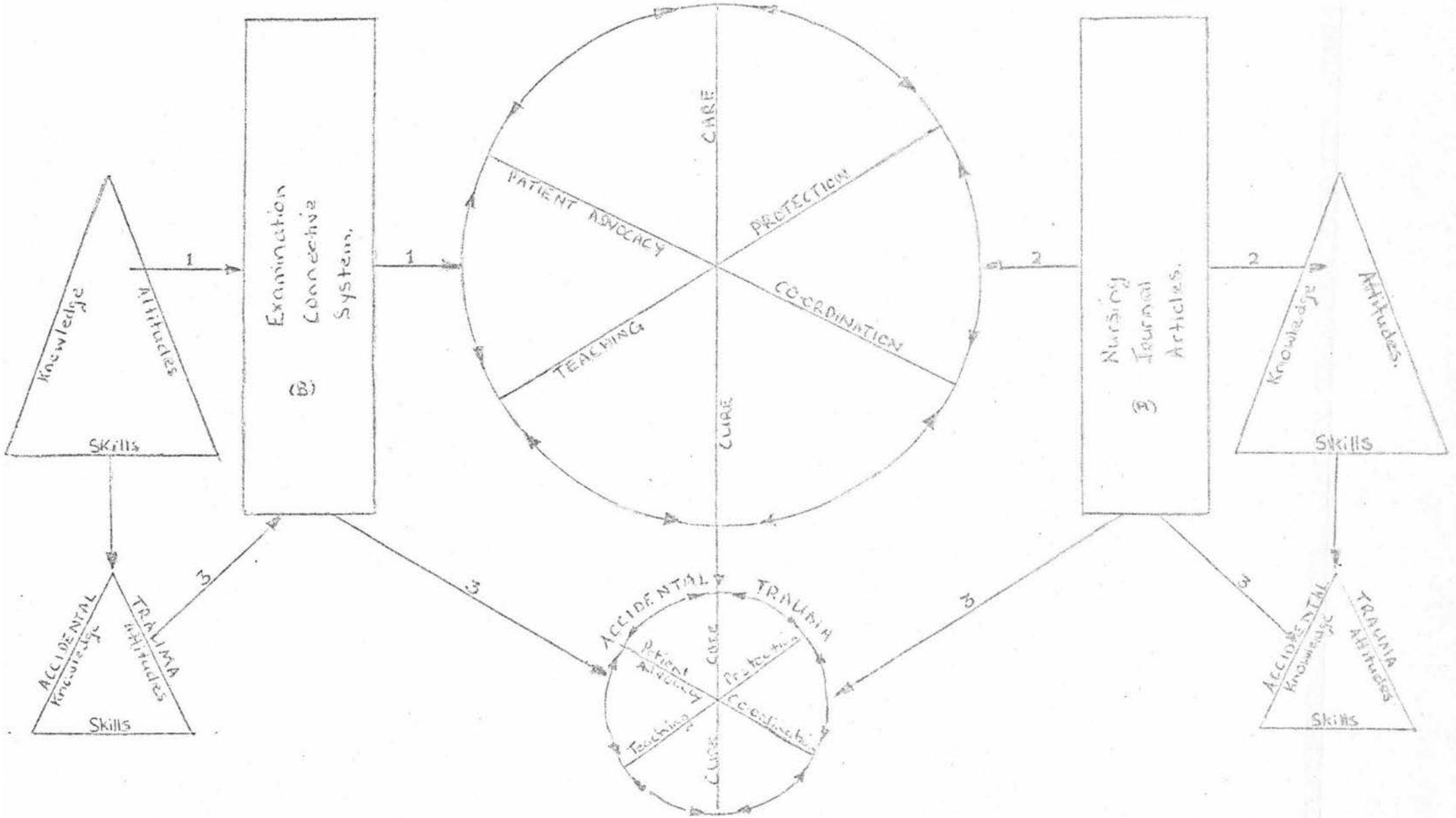


FIGURE 4.2: Schematic Representation showing the operationalisation of the Functional Components of N.E.E.P. Model used in Investigative Section of this Thesis.

c) the investigation of a specific setting for nursing practice using all systems of the N.E.E.P. model.

METHODOLOGY

Time Period

The time period 1901 to 1981 has been selected for this study. In the year 1901 the New Zealand State Registration Act for Nurses became law. From this date New Zealand nurses were required to pass a state registration examination in order to be able to practice as a professional nurse in New Zealand. The final year of this study - 1981 - was chosen as it was the last year prior to the commencement of this study.

Selection of Surgical Examination Paper

Three papers in medical, surgical and obstetric nursing respectively make up the "State" examination for general and obstetric nurses. Examinations are held in May/June and November/December of each year.

In this thesis, the surgical paper has been selected as the focus for study. This examines a student's knowledge, attitudes and skills in relation to surgical nursing. A content analysis using a theme count is used for the entire content of the paper. A second analysis of the nursing care associated with accidental trauma is also undertaken. This specific aspect has been chosen for closer examination because of its particular relationship to social change. Statistics on accidental trauma in this country reveal that over the years the percentage of deaths due to accidental trauma has remained relatively unchanged (6.35% (1901) to 6% (1981)) in relation to other causes of mortality. Conversely, a study of the causes

of accidental trauma over a similar time period reveals that several changes have occurred as a result of social change (refer Appendix A).

An examination of the findings of a content analysis performed on two medical examination papers, reveals some differences in the type of patient care categories required to count the themes in relation to two examination papers set in the same time periods (refer Appendix B). Therefore it is acknowledged that trends identified in the surgical papers are not necessarily reflected in the other two papers which comprise the 'State' examination for general and obstetric nurses. The selection of one of the 'State' examination papers for content analysis is justified on the basis that from the year 1901 when the New Zealand State Registration Act for Nurse became law the author argues that the 'State' Examination has served as an 'indicator' of fitness to practice nursing (refer p.45).

Sample Obtained from Examination Papers

Initially, the analysis of the examination papers was to take place every tenth year from 1901 to 1981; a sample of 18 papers. Each paper is known to contain at least five questions. A minimum sample of 90 questions was considered large enough to enable conclusions and reasonable inferences to be drawn from the results. A preliminary study of the frequency of incidence of content on accidental trauma was carried out.

Table 4.1 sets out the total number of questions in the surgical paper. It shows that 24% (25) of the questions contain material related to accidental trauma. This number was, however, regarded as too small for the purpose required in this thesis. In addition it was discovered that the first 'State' examination was not conducted until November 1903, making ten year intervals difficult.

Accordingly a more intensive analysis has been carried out using five year intervals.

TABLE 4.1: ORIGINAL SAMPLE OF EXAMINATION PAPERS

Year of examination	Obtained May/ June	Obtained Nov./ Dec	Not obtained May/ June	Not obtained Nov/ Dec	Number of Questions for Papers	Number of Questions relating to Accidental Trauma
1901			✓	✓	no paper sat	
1911	✓	✓			12	3
1921	✓	✓			12	0
1931	✓	✓			12	3
1941	✓	✓			12	2
1951	✓	✓			12	2
1961	✓	✓			10	3
1971	✓	✓			10	3
1981	✓	✓			22	9
Total	8	8	1	1	102	25

This larger sample lessens the occurrence of the element of uncertainty or sampling error and increases the study's validity. Accordingly, the number of questions to be analysed has been increased to 199 questions derived from the 33 surgical papers of which 46 questions relate to accidental trauma. In four time periods the selected papers were not obtainable (refer Table 4.2), therefore the paper nearest to the time period was substituted. Table 4.2 shows the sample of surgical examination questions analysed in each time period and indicates the actual number of questions relating to accidental trauma at each time period. Any deviation from the five year time period sample and the rationale for the inclusion of the substitute papers is also shown.

TABLE 4.2: FINAL SAMPLE OF SURGICAL EXAMINATION QUESTIONS ANALYSED IN THE TREND CONTENT ANALYSIS

Year of Examination	Month of Examination	Number of Individual Questions	Number of Accidental Trauma Questions	Any relevant comments pertaining to alteration from Original sample.
1903	December	6	1	The first State Final Surgical Paper sat. No exam sat in June 1903. Therefore the papers sat in Median year between 1905 & 1911 were included.
1908	June	6	1	
	December	6	2	
1911	June	6	1	
	December	6	0	
1915	December	6	1	December 1915 paper included due to June 1916 paper unobtainable due to incomplete historical records.
1916	December	6	3	
1921	June	6	0	
	December	6	0	
1925	December	6	1	December 1925 paper included due to June 1926 paper unobtainable due to incomplete historical records
1926	December	6	2	
1931	June	6	2	
	December	6	1	
1936	June	6	3	
	December	5	1	
1941	June	6	1	
	December	6	1	
1946	June	6	1	
	December	6	0	
1951	June	6	1	
	December	6	1	
1956	June	6	1	
	December	6	0	
1961	June	5	1	
	December	5	2	
1966	June	5	1	
	December	5	2	
1971	May	5	1	
	December	5	2	
1976	December	5	2	May 1976 paper unobtainable due to incomplete historical records so May 1977 paper substituted
1977	May	5	1	
1981	May	11	4	
	November	11	5	
Total		199	46	

Selection of the New Zealand Nursing Journal

The selection of the New Zealand Nursing Journal for the trend analysis of nursing practice is justified on the basis that since 1908[2] it has been the official journal of the New Zealand Nurses' Association. (The professional body responsible for advising on the development of nursing in this country). The author argues that the important issues relating to the six dimensions of nursing practice and the elements which make up these dimensions of nursing practice are contained within its pages.

The author has used the journals to identify historical trends. Every journal has been examined in the light of the six dimensions (care, cure, protection, teaching, co-ordination, patient advocacy). Material drawn from the journals has been used as the basis of Chapters 5, 6 and 8. References in the text are included with the general references placed at the back of the thesis (Bibliography): Journal articles examined but not quoted from are included in a total Journal reference index attached as Appendix C.

Content Analysis

A trend content analysis of 199 questions in the state final examination papers is used as the main research methodology in this study.

Holsti (1969) suggests that when used in isolation content analysis is a limitation on intuition.

> For intuition is not a substitute for objectivity, for making one's assumptions and operations with data explicit where they are open to critical purview. (p.10).

2/ The New Zealand Nursing Journal was first published in 1908.

Nor, he continues, is it a substitute for evidence and thus subjectivity can easily occur especially in the absence of explicit rules of evidence and inference that could be applied. In this study it is hoped to counteract this factor by cross checking the two sources of data.

> The analysis of content is as central a topic as all of the sciences dealing with man. The capacity for speech is man's most striking characteristic, and language is bound up with rational thought, the emotions, and all of the distinctively human parts of man's internal life .... Rightly viewed, content analysis is a care problem in the study of man, and to work at solving it could alter the social behavioural sciences of fundamental ways.
>
> Hay (in Press) (p.1).

Holsti and Stone (1966) define content analysis in the following way:

> Content analysis is a technique for making inferences by objectively and systematically identifying specified characteristics of messages. (p.14).

The above definition is useful because it incorporates the three important criteria of objectivity; the need to be systematic and the fact that it must be based on theoretical reason. According to Holsti (1959) content analysis is a multipurpose research method that can be especially developed in order to investigate "any problem in which the content of communication serves as the basis of inference" (p.2).

Content analysis may be carried out at two different levels - the manifest level and the latent level. Content analysis at the manifest level is a direct transcription of the response with nothing either read into it or assumed. It is the surface meaning of the communication. Content analysis at the latent level involves the research-

er in trying to analyse the deeper meaning in the document by seeking to infer what was implied or meant. Fox (1970) states that although there is ample evidence to indicate that content analysis at the manifest level can achieve a very high degree of reliability and validity this is not so for the latent level of content analysis. In this study the manifest level of content analysis will be used to ensure a high degree of reliability and validity.

Holsti (1969) advocates that a communication is composed of six basic elements: a source or sender; an encoding process which results in a message; a channel of transmission; a detector or recipient of the message; and a decoding process (refer Figure 4.3). Content analysis is always carried out on the message although results of content analysis are often used to make inferences about the other communication process elements involved.

A good content analysis design makes explicit and integrates procedures for sampling data for analysis; establishing and comparing content categories and the type of inferences which may be drawn from the data. The goal of content analysis research is to provide a systematic and objective description of the communication. The utilisation of "trend content analysis" in this study will allow the comparison of documents of the same source (surgical state final examination papers) to be analysed over a period of time (1901 to 1981) thus the content data will serve as a direct answer to the research questions by enabling any trends to be identified (refer Figure 4.4 for schematic representation of trend content analysis).

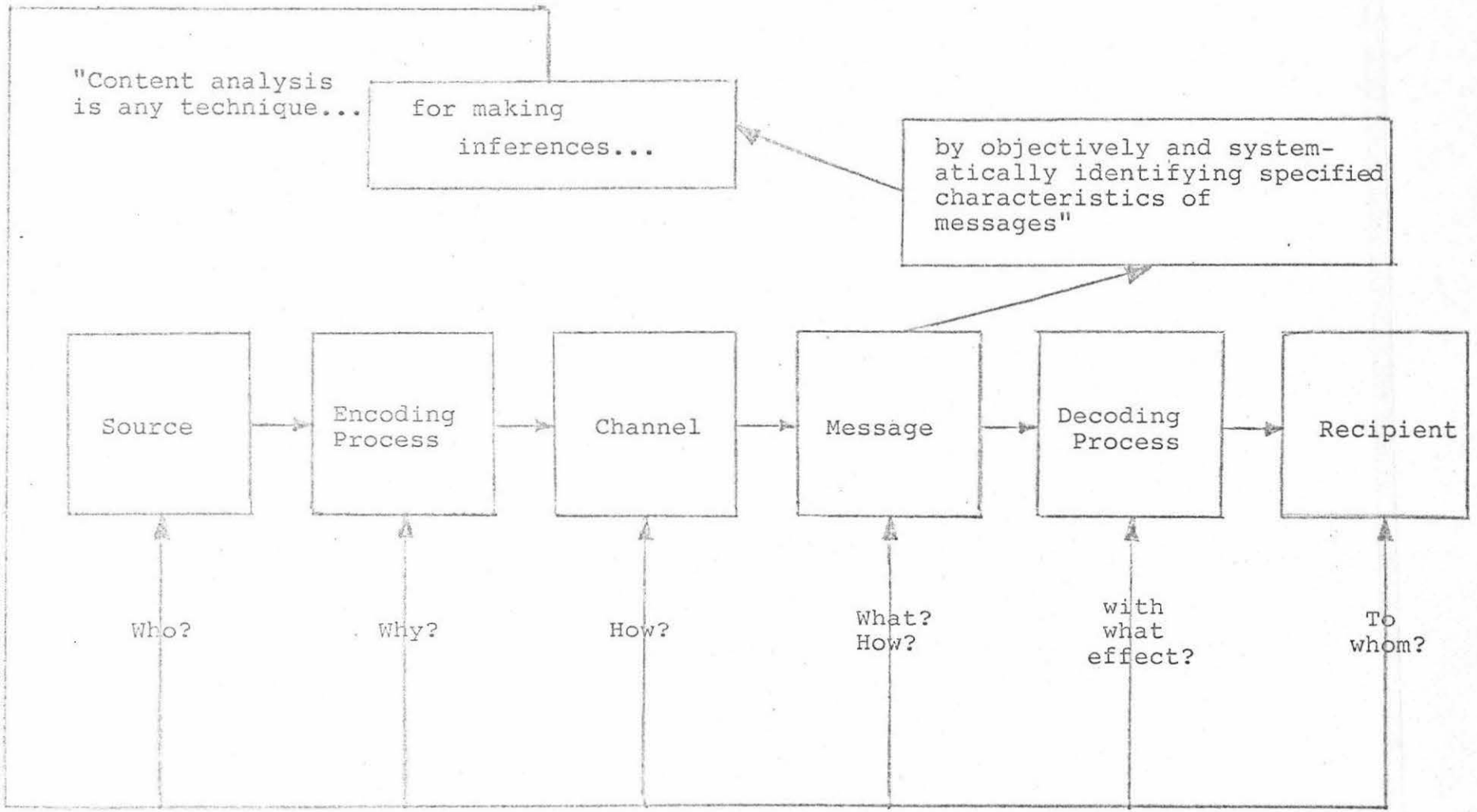


FIGURE 4.3: Content analysis and the Communication Paradigm.
Source: Holsti (1969. p.25).

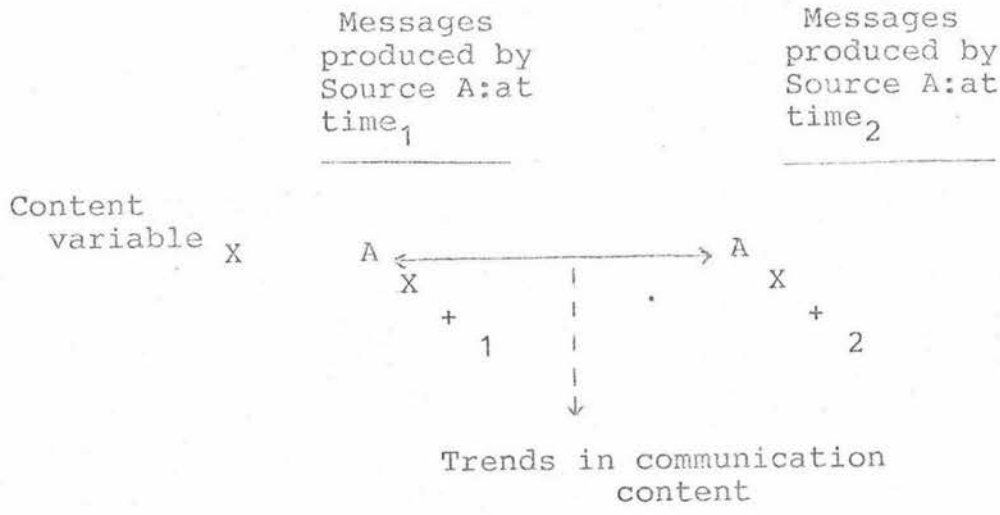


FIGURE 4.4: Schematic Representation of Trend Analysis

Key - X refers to content variable
+ equals time
an arrow with two heads specifies a comparison between two categories
an arrow with a broken line indicates the inference to be drawn from the comparison. Source: Holsti (1969 p.28)

Holsti (1969) cites the use of "trend content analysis" research in the trends studies used to analyse children's readers (deChams and Moeller, 1961); the content of rural newspapers (Tauber 1932); psychology research development (Allport and Bruner, 1940) and sociology (Becker, 1932).

Holsti (1969) feels that while trend inventories can be very successful at identifying major changes over long periods of time and are relatively easy to do, some studies actually conceal more than they reveal. A study being made of trends Holsti (1969) believes may be hampered by editorial bias. This element may not occur in this study because the membership of the Examination Committee of the Nursing Council, who are responsible for establishing the criteria for the examination papers, are elected for a three year term. The choice of papers at five year

intervals may mean that the sample chosen for this study will reveal lack of continuity rather than editorial bias. However equally relevant is the fact that this changing membership could also account for some of the changes and trends in the examination papers.

Categories

> A central problem in any research design is selection and definition of categories, the "pigeonholes" into which content units are to be classified. Content analysis stands or falls by its categories.
>
> (Berelson, 1952, p.147).

Holsti (1969) feels that the most important requirement of categories is that they adequately reflect the investigator's research question. The conceptual definitions must be clearly defined prior to determining the "operational definitions". The categories developed for the content analysis are described in the section on page 66 which discusses the research instrument used for data collection.

The Survey Instrument

The instrument used for data collection was developed from the nursing behaviour data categories devised and used by Georgopoulos and Jackson (1970) for the analysis of the nursing Kardex. This instrument had also been adapted for use by Kinross (1981) for her charge nurse innovation project. The instrument was chosen by the author because its categories fitted the six dimensions of nursing practice postulated for this study. The 22 mutually exclusive categories being closely linked to the elements associated with the six dimensions of nursing practice. The divisions of the categories of the survey instrument into the six dimensions of nursing practice is shown

TABLE 4.3: CATEGORIES FOR CONTENT ANALYSIS ACCORDING TO DIMENSION OF NURSING PRACTICE AND FOCUS OF THEME CONTENT

Dimension of Nursing Practice	Patient Care Categories for Content Analysis
1. The Caring Dimension	General Nursing Care Physical Care Pain Sleep Psychosocial Care Specific Patient Age of patient Abilities/Disabilities
2. The Cure Dimension a) Observations b) Specific Treatments c) Technical Skills and Procedures	Observations and Assessments Blood Pressure T.P.R. Patient Progress Complications Functional Status Medications Patient Diet Patient Activity Weight Intake and Output Treatments Specimens Tests and Procedures Artificial Drainage Methods Artificial Intake Methods
3. The Protection Dimension	Professional Responsibilities Precautions and preventive measures
4. The Teaching Dimension	Patient Participation Health Education
5. The Co-ordination Dimension	Interactions - Team Interactions - Nurse
6. The Patient Advocacy Dimension	Patient Preferences/Interests Nurse/patient interaction
	Auxiliary Categories
Anatomy and Physiology	Anatomy and Physiology
Administration Aspects	Time, Location, Examination Interaction

Patient Care Categories = 32
Auxiliary Categories = 4 Total 36

on Table 4.3 (over).

Georgopoulos and Jackson (1970) original survey instrument:

> Provided a total of 22 mutually exclusive, but collectively exhaustive - care categories - developed to accomodate virtually any nursing statement appearing in the Kardex. (p.197).

Kinross' (1981) adaptation of two of the "doctor-dependent" categories are utilised in this study. The category relating to "tubes" Kinross adapted to "cares of all artificial draining methods" and secondly the category pertaining to "intravenous fluids" is adapted to include "artificial intake methods".

To the 22 categories relating to 'patient care', already described a further 10 categories have been added for this study in order to enable all nursing statements from the examination questions to be coded according to the specific content to which they refer. These additional categories are general nursing care; specific patient; health education; professional responsibilties; observations; nurse patient interaction; complications; interaction nurse; and interaction team.

In addition one category for anatomy and physiology is included in order to allow data relating to this subject to be counted, and three other categories relating to administration content such as time, location and examination instructions have been added. The survey instrument used in this project provided a total of 36 categories developed to accommodate virtually any statement appearing in the examination paper. Definitions for each of the categories used for this trend content analysis are included as Appendix D.

Each of the 32 patient care categories used can be allocated to one of the six dimensions of nursing practice. Of these, eight are incorporated in the care dimension. All these categories are considered by the author to relate to activities associated with the care dimension as they involve caring for the patient by meeting his needs, and the provision of comfort and support; or indicate that the nurse cares about the patient as a "person". It is on this basis that the two categories of specific patient and age are included in this dimension and not in the administration related categories.

The cure dimension includes 16 categories which are grouped around three main activities of observations, special treatments and technical skills and procedures. The protection dimension includes the two categories of precautions and professional responsibilities. Health teaching and patient participation are included in the teaching dimension. The co-ordination dimension of patient care includes the two categories of interaction with team members and the interaction with other nurses caring for the patient. The sixth dimension - patient advocacy - incorporates the two categories of patient preferences and interests and nurse patient interaction.

The remaining four categories which are called the auxiliary categories (refer Table 4.3) relate to anatomy any physiology; the administration aspects pertaining to references of time; the location in which nursing care is being given and the examination instructions given in relation to the questions. Thus these final three categories relate to the "how" to answer the question and not to the "what" is included in the examination paper.

> If "categories" are inadequate, then irrespective of the precision of measurement, the result will also be inadequate; a content analysis cannot be better than its categories.
>
> (Holsti, 1969, p68).

Holsti states that "unstandardised" categories rule out the possibility of valid comparison and thus make the analyst uncertain as to whether his findings actually reflect changes in communication content.

The validity and reliability of the 22 categories developed by Georgopoulos and Jackson on the survey instrument had been established previously. In using their original 22 categories Georgopoulos and Jackson (1970) had found that average inter-judge agreement prior to the resolution of discrepancies ranged from 75% to 83% across the three time periods in which the categories were used. Kinross (1981) found in her study that the average inter-judge agreement prior to the resolution of discrepancies ranged from 75% to 84%.

PROCEDURE

Data Collection (Examination Papers)

Selection of Examination Papers

The sample of state final examination papers were collected from three main sources for this study. The early examination papers; from 1903 to 1931; were obtained from the New Zealand Journal of Nursing. Papers in 1951 & 1956 time periods were obtained from the Palmerston North Hospital Board School of Nursing. The remaining papers were obtained from the Nursing Council. Due to the fact that the first examination paper was set in 1903 and not 1901 the papers sat in the median year - 1908 - between 1903 to 1911 were included in the sample along with the 1903 and 1911 papers. Inability to locate the June 1916; June 1926; and May 1976 examination papers due to incomplete records necessitated the inclusion of the December 1915; December 1925 and May 1975 papers in the sample. With the exception of December 1936 both examination papers

in the 12 time periods from 1903 to 1956 inclusively contained six examination questions (refer Table 4.2). The remaining papers except for 1981 contained 5 questions. While the two papers in 1981, contained 11 questions. Thus the total sample consisted of 199 questions to be analysed over the 17 selected time periods. Of the 199 questions, 46 or 20% of the sample questions contained material relating to accidental trauma.

Content Analysis of Questions

Each question in the 32 examination papers was typed on a separate page with no indication given of the source of the question. A random number table was used to allocate a number to each question.

Using the survey instrument described on p.66 of this study, the actual content analysis process was carried out by the analyser. The coding of data began after preliminary practice with 25 questions, following suitable refinements and definitions of the analytical categories specified to ensure satisfaction with the form of instrument used. The 199 examination questions were coded according to their numerical order on the random sample table. A sequence designed to minimise bias and assure a pre-determined order in the content analysis process. Each "series" of multiple choice questions in the 1981 paper were encoded as one question.

Each phrase was counted only once and allocated to one category only. After all data was properly classified according to the appropriate care or auxillary categories, the frequency counts of the themes for each of the 17 time periods were recorded.

Following the preliminary analysis of all the examination questions any question with phrases relating to accidental trauma nursing were then identified. The analysis findings

of these questions were collated and quantified, to enable the examination of constancy and difference in the elements constituting the six dimensions of nursing practice in this specific aspect of nursing to be obtained.

After each question had been analysed by the researcher a 10% sample of the questions were analysed again by two independent judges for average inter-judge agreement. Any discrepancies and ambiguities that arose were then discussed with each judge and subsequently resolved. The first of the two independent judges, a non-nurse, was a university graduate with considerable experience in research. The second person who had no previous research experience was a nurse tutor employed in a hospital school of nursing which prepares students to sit the surgical examinations, and so she was familiar with the content and format of the surgical questions. Average inter-judge agreement prior to resolution of discrepancies ranged from 100% to 73%.

Following the completion of the inter-judge agreement the questions were decoded to enable the results to be presented according to their time period and examined for constancy or difference, prior to being cross checked with the data from the historical trends derived from journal articles.

According to Holsti (1969) a limitation that may occur when relying solely on historical documents for research arises because of the difficulty in interpreting the true meaning of language used. Words often have several meanings and the meanings of words may alter over time making correct inferences harder to attain. As this study only includes data written in this century this problem is expected to cause little difficulty.

Data Collection Procedure (Journals)

Selection of Journals

A complete set of early New Zealand Nursing Journals was located in the Health Department library in Wellington. The analysis of articles in the New Zealand Nursing Journal from 1908 to 1949 was carried out using journal articles from this source. For the remainder of the journal data collection procedure (1950 to 1981) the author used the New Zealand Nursing Journals located in the library of the Masterton Hospital School of Nursing.

Identification of General Historical Trends - Journals

Once all the Nursing Journals were located, using the nurse practice system (C) (refer Figure 4.2) to provide direction for data collection, each article was examined chronologically for evidence of references relating to the six dimensions of nursing practice and their associated elements. Once references were identified their content was recorded to enable the author to ascertain any trends occurring in the journal articles in relation to these references. The application of the nurse education system (A) (refer Figure 4.2) also provided direction for data collection pertaining to references to the six dimensions of nursing practice and their associated elements. This data forms the basis of the material presented in this study pertaining to general historical trends identified in the journal in relation to constancy and difference occurring in the elements comprising the six dimensions of nursing practice. The results of the trends identified in the journals were then cross checked with the findings of the examination analysis. (Refer section 3 of this study).

Following the preliminary study of all the ournal article any articles containing material relating to the nursing of patients with accidental trauma were identified. These

articles were then examined chronologically using the nurse practice system (C) to identify any references (refer Figure 4.2 and to provide direction for the collection of data relating to the six dimensions of nursing practice and their associated elements. Once references were identified they were recorded to enable the author to ascertain any trends occurring in the journals relating to the nursing of patients with accidental trauma. The application of the nurse education system (A) (refer Figure 4.2) also provided direction for the collection of data relating to the six dimensions of nursing practice and their associated elements. The material in this specific aspect of nursing practice forms the basis of the chapters pertaining to the historical trends identified in the journals in relation to constancy or difference occurring in the elements constituting the six dimensions of nursing practice in this specific setting. The data from this source was then cross checked with the examination findings. (Refer section 4 of this study).

SUMMARY

The purpose of this chapter has been to describe the design and methodology to be used in the investigative sections of this study. In the next section (3) of this study the data relating to the analysis of the examination papers and the material pertaining to the historical trends derived from the journal articles will be presented and examined to identify constancy and difference in the dimensions and their associated elements of nursing practice along a time continuum from 1901 to 1981. The two data sources will be cross checked. The Mann-Whitney U test is used in this study to ascertain statistical results. (Refer Appendix E).

The use of the nonexperimental research design in this study is very useful for carrying out descriptive studies. It enables new facts to be generated and an in depth analysis to be carried out although it lacks some of the "controls" found in experimental research. Abdellah and

Levine (1965) believe that the "artificiality of experimental studies is eliminated" (p72). Therefore findings may have a more relevant application to the real world.

In all types of research methodology careful planning is needed in formulating the research design.

> In tackling a research problem, the investigator should not let his mind roam, speculate about possibilities, even guess. Once the possibilities are known, the intensive stage of thinking can enrich the research conception by leading more effectively to the analytical stage of organising and structuring the problems. The investigator is then ready to plan his approach to the problems and to decide what research and analytical methods he will use to execute his ideas. Good research design is not pure analysis. Intuitive thinking, too, is essential because it helps the investigator to arrive at solutions that are not routine. Perhaps most important, it should be remembered that intuitive thinking and analytical thinking depend upon knowledge, understanding, and experience.
>
> (Kerlinger, 1964, p322).

SECTION 3

In this section the findings relating to the identification and examination of the elements of the six dimensions of nursing practice over time are presented. Consideration is first given to the findings related to the identification of historical trends in the material derived from the New Zealand Nursing Journal from 1908 - 1981. A trend analysis of the data collected from the five yearly sample of surgical State Examination papers is then presented and discussed. This two pronged approach allows the author to cross check the conclusions reached from the analysis of the examination data over time with the trends identified in the journals. The content of this section is divided into three chapters.

Chapter Five: Nursing Practice: its dimensions and elements. An historical analysis of the New Zealand Nursing Journal 1908 - 1981.

Chapter Six: Nursing Education: Its dimensions and elements. An historical analysis of the New Zealand Nursing Journal 1908 - 1981.

Chapter Seven: Readiness for Practice: an analysis of Surgical State Examination Papers, 1903 - 1981.

CHAPTER FIVE

NURSING PRACTICE, ITS DIMENSIONS AND ELEMENTS: AN HISTORICAL ANALYSIS OF THE NEW ZEALAND NURSING JOURNAL 1908 - 1981

In this chapter the elements comprising the six dimensions of nursing practice (refer p.28) are considered in light of the references to them in the New Zealand Nursing Journal from 1908 to 1981. The six functional components of the nurse practice model (refer Figure 4.2), which also represent the six dimensions of nursing practice, (care, cure, protection, teaching, co-ordination and patient advocacy) are used to collect and collate data pertaining to their associated elements, to enable any trends occuring in the journal in relation to these elements to be identified.

This chapter consists of two parts. The first part provides a brief introduction to nursing in the New Zealand setting to 1901. Part two presents the material derived from the journals relating to the six dimensions of nursing practice and their associated elements. The chapter concludes with a brief summary of the main points.

THE BEGINNING OF MODERN NURSING IN NEW ZEALAND

> The first mention... in regard to nurses as we understand the term was at the first hospital in New Zealand established at Auckland .... The conditions were, of course, most primitive. The staff consisted of a Master and a Matron and such help as could be procured from the refuge. Lambie (1960 p8).

The first hospital in New Zealand was established in 1841 in Auckland. In this country, state intervention in health matters occurred five years later in 1846 when the Government granted money for the development of hospitals in Wellington, Wanganui and Taranaki. As settlements were established, or a goldmine discovered, other hospitals were built and by 1882 this haphazard developmental process had resulted in a total of twenty-eight hospitals, which varied in both standards of general construction and the type of patient care offered.

As in pre-Nightingale England the hospitals were usually under the direction of a Master and Matron (a husband and his wife) and the nursing staff consisted chiefly of uneducated women generally from the domestic class, who were assisted by convalescent patients. Lambie (1960) quotes comments made in 1882 by Dr Grabham (the first inspector of Hospitals) to describe the nursing staff.

> The type of woman employed was uneducated, rough and uncouth in her conduct, and this was reflected in the state of the wards and the care of the patients. (p8).

According to Cameron (1957) in these early years nursing consisted of a direct service to the patient with "the nurse learning most of her skills by the trial and error method" (p148). Nursing care consisted chiefly of simple therapeutic measures, such as the application of poultices, herbs and basic hygienic measures. Little or no thought was given to nursing education. Traces of this "folklore era" type of nursing existed in New Zealand hospitals up until the early 1880's when the first nurses trained under the Nightingale system arrived in New Zealand. The employment of the Nightingale nurses saw the inception of modern nursing in this country and ushered in a new era of nursing - the Nightingale era- based on the Nightingale system incorporating the elements of nursing practice identified by Nightingale in 1859.

Kinross (1972) states that:

> the first nurses trained under the Nightingale system were introduced into Auckland and Wellington hospitals in 1883. (p10).

Thus the apprenticeship system of probationer training began and was soon to spread to other hospitals in New Zealand. The first training with certification commenced at Wellington hospital in 1889. In direct contrast to his earlier comments, in 1886 Dr Grabham said that the nursing staff:

> are well trained, intelligent and lady-like being evidently drawn from a class much superior to the old fashioned nurse of former times. (p9).

Shadbolt (1975) suggests that in these early years of the Nightingale era some of the Nightingale principles were overwhelmed by expediency and lack of finance and the fact that:

> the training Matrons were overwhelmed with housekeeping demands (caused) training to take second place. (p21).

Mrs Neill, a Nightingale trained nurse, who had been appointed assistant Inspector of Hospitals in 1895, was troubled by the lack of conformity and variations in standards in these hospitals and it was largely as a result of her influence that the Nurses Registration Act was passed in 1901. Under this Act the course of training was to be three years in length and a system of biannual examinations and a New Zealand "register of nurses" was introduced.

The introduction of these examinations promoted a higher standard of training based upon the Nightingale system and led to conformity in the content and process of training programmes in New Zealand. Mrs Neill herself drew up the regulations and syllabus of training and in her capacity as Assistant Inspector of Hospitals until 1906 she was able to ensure that the Nightingale system was enforced throughout the country. Fogarty (1973) believes that:

> this early emphasis on thorough training was of inestimable value in laying a sound foundation for all future developments in nursing... (p.23).

THE CARE DIMENSION

From the inception of the Nursing Journal in 1908 references to elements in the care dimension of nursing practice have been very evident. In the first edition of the N.Z. Nurses' Journal, Rochfort (1908) reminds nurses of the importance of an abundant supply of fresh air, plentiful food, regulated rest and exercise. A point of view supported by MacDonald (1913) and Barnett (1913). J.D.H. (1909), when discussing the duties of a District Nurse, incorporates these points in the nurses' responsibilities which she states are:

> to apply dressings, wash and change the patients, change the bed clothes, prepare special food... (p.23).

The importance of caring not only for the physical body but for the mental aspects as well is stressed by A.H.H. (1908) who emphasises the need for nurses to remember that they are also dealing with human feelings. She advocates that if a nurse wishes to really relieve suffer-

ing and become a good nurse she must let her motto be:

> Humanity first, science next, and one of your strongest characteristics be the power to combine the two. (p21).

McLean (1909) offers a similar point of view:

> A true nurse knows exactly how a patient likes to be treated, how to move him, and how to feed him... (but) sick people are not chairs and tables to be scrubbed and cleaned and left, the personal element must come in. (p2).

These articles reflect the view point of Florence Nightingale which is quoted in an unsigned article (1911) about District Nursing.

> The first thing a district nurse has to do is NURSE. It is the nursing, the giving of ease and comfort to the patients which gives her influence. (p16).

A Health Department Report (1934) suggests that the nurse from the start of her training must be taught "the study of her patients as individuals rather than as specific cases" (p243).

For as Taylor (1938) advocates;

> "nurses care for and minister to the patient and not the disease or condition". (p60).

An unsigned article (1925) reporting on a discussion of the role of the nurse held at Conference states:

> that the work that tells is the work of a skilled hand, controlled by a cool head, empowered by the heart. (p176).

Or to use Holfords (1922) words "a gentle hand and tender heart" (p.206). MacEarchern (1926) states that he believes:

> that the real test of efficient nursing service ... is reflected in the care of the patient. The nurse, to render good service, must know her patient physically and psychologically. (p.66).

A 1921 journal article by Nutting and Dock contains the following excerpt about medicine - the medicine giver; and nursing - the care taker.

> Though their spheres may at times, have merged into one another, yet only the nurse has been the one who personally cared for the sick and helpless and attended to his physical needs, gave advice and comfort, learnt to apply simple remedies and assist the Doctor in his treatments. (p.91).

However an unsigned article (1927) on the "personal cares of nursing" documents the fact that technical duties are already being considered more important than nursing duties and that nurses are too rushed or else forget to meet basic human needs.

> Medicines are given, tests prepared, wounds dressed, positions maintained, correct nourishment given according to scale, special diets prepared, and charts kept.... But we fear that nurses have no time to carry out duties which make all the difference to the comfort of the patient.... Patients... say the nurses are so busy rushing round, that they fear to ask for any attention, and lie in misery, when a simple want satisfied could give them ease. (p.3).

In 1939 a further unsigned article reminds nurses that;

> nursing care in the full conception of the term implies complete understanding between patient and nurse and that having gained an intimate knowledge of her patients every needs whether physical, mental, emotional or spiritual the patient then has perfect confidence in the ability of the nurse. (p.201).

The debate over care versus the cure aspects of nursing continues throughout the late 1920's and 1930's. In 1928 an unsigned article reporting on the inception of a three week preliminary course for pupil nurses at Dunedin hospital states that one of the aims of this course is to teach students the "handicrafts" of nursing care; such as the personal care of patients including bed bathing, care of the mouth, teeth, hair and backs (p18); before they enter the wards. The care versus cure topic was also discussed at the 1930 New Zealand Trained Nurses' Conference. In an extract from the Government Health Department Annual Report (1934) the following comment is noted.

> A great deal more attention in regard to the actual nursing procedures and to the humanitarian aspects of the (nurses) work is necessary. (p244).

Therefore as Lambie (1938) suggests although the:

> Functions of nursing have enlarged due to tremendous changes in society... the objectives of Florence Nightingale remain the same. (p61).

E.B. (1939) supports a similar point of view as she stresses the need to incorporate with the new technical duties "an intimate knowledge of her patients every need whether physical, mental, emotional or spiritual" (p204). Meanwhile Taylor (1939) in the same year suggests that nursing functions incorporate tending, nurturing, protecting and educating of people from the cradle to the grave, in health and in illness. Goodwin (1943) while discussing "Comfort" as a nursing essential, both physical and psychological, also supports the view that routine leaves no time for nurses to be with patients and suggests that nurses should change from task nursing to patient assignment to enable the nurse to care for the total patient. Orbell (1953) in commenting on the implications of the Hospital Job Analysis completed in England warns that the nurse:

> spends very little time in basic nursing duties... those duties that have their origin in the physical needs of the patients.... The accepted function of the trained nurses in our hospitals is not to nurse the patient herself but to see that he is nursed. (p.135-136).

Paralleling these articles are others that continue to emphasise particular elements of the care dimension of nursing practice. Barnes (1952) stresses the importance of rest and sleep to help a patient recover his strength. Candau (1954) emphasises the need for "the nursing attitudes of compassion" (p.36) to augment the art of caring for the sick, while an unsigned editorial (1956) states that in New Zealand:

> The nursing profession accepts the responsibility of institutional and domicilary nursing care of the sick and aged, but the greatest problem is to provide for the mentally ill. (p.3).

Thus the increasing importance being placed upon the psychological needs of a patient is also apparent (refer Chapter 8 p.180).

Orbell (1960) believes that although changes have occurred in nursing over the years "the basic elements of nursing care will... never change" (p.7). Because Orbell (1960) sees the art of basic personal care as the central core of nursing she is concerned with the nurses' "flight from the bedside", and her increasing involvement in technology. Turbott (1957) also subscribes to the point of view that the primary function of nurses is to:

> give skilled nursing care to the sick and disabled in accordance with the physical, emotional, and spirtual needs of the patients, whether that care is given in hospitals, homes or industries. (p.107).

Broe (1961) is also concerned with the increase in the number and importance of technical skills in nursing. Like Orbell (1960) she believes it is essential to define nursing and delineate the activities of nursing care. She advocates consideration of the basic principles of nursing care as described by Henderson (1964). As an indication of her concern she quotes the following remark made at the International Congress of Surgeons held in Rome in 1960.

> Our nurses are now so busy looking after machines that we shall have to find other people to care for the patients. (p21).

and she asks:

> have we drifted towards an extreme where skill and deftness in use of our hands have become a lost or scarcely valued art?
>
> Editorial Nursing Times 1960 (Broe, 1961, p22).

In the 1960's emphasis is also placed upon the need to consider the psychological elements of nursing care along with the physical elements. Orbell (1962) suggests that over the years:

> we have become much more conscious of the patient's emotional needs and the influence of psychological factors in illness. (p9).

Like Beaumont-Orr (1960) she believes that the human element in nursing must be preserved and that nurses should realise that a patient is a "person" and not just a "case". Cameron (1963) suggests that to be effective nursing care must be patient centred and emphasise "the direct personal care of the sick" (p13). Patients she believes are very concerned about the physical comfort aspects of patient care and nurses must:

> endeavour to assure that our patients receive the supportive nursing from the mental, physical, spiritual and emotional aspects so that he will be provided with rest, serenity good hygiene and comfort. (p12).

Sister Mary Therese and Sister Mary Anne (1964) comment that the fundamental principles of basic nursing care which all nurses must know and understand are derived from the "universal human needs which are common to all people" (p29). Incorporated in the meeting of the basic human needs Somerset (1964) suggests should be communicated the inherent worth of man. Henley (1964) like the other authors believes that a nurse's primary concern should be:

> what are the needs of the patient and how can these needs be satisfied? (p5).

Pickard (1966) also stresses the fact that nurses must understand the emotional needs which accompany every physical need if they are to provide "Comfort" to their patients. A W.H.O. release reprinted in the New Zealand Nursing Journal (1967) entitled 'Nurses' sums up the feeling of journal articles in the 1960's about the elements of nursing care in relation to caring in the following way:

> Along with the technical progress that has completely revolutionised medicine in the past 20 or 30 years, the nurse's duties have become increasingly difficult and responsible. Often she cannot use all her abilities to the full...She knows quite well that her function is not just to administer injections and give medicines...she must observe and assess the need for nursing care, console and educate the sick...these are essential aspects of the nursing profession...for it is the patient that counts...One of the major obstacles preventing the nurse from carrying out her unique functions (is) she is overwhelmed by other duties.... (p5-6).

Thompson (1968) quotes Hughes et al's study to support a similar view point. In this study the technical duties were considered by younger nurses (those who graduated after 1940) to be the most essential elements of nurses. Graduates prior to 1946 believed that "bedside care of patients was most essential in nursing" (p.20). McIver (1970) however suggests that the community still expects nurses to provide physical, mental and emotional comfort to people when they are sick and injured. She contends that:

> In spite of all the development and changes that have taken place in our society...the function of "nursing" is still essentially the same. We expect our nurses to give us succour and comfort when we are injured or sick. (p.7).

Marshall (1972) and O'Grady (1972) both support McIver in her comments, and Marshall emphasises that while ensuring the physical comfort of a person a nurse should also look for any mental or spiritual needs. An unsigned article (1973) when discussing the "needs concept" utilises Maslow's hierarchy of needs as the basis for nursing care for all individuals. Boyd (1972) suggests that a nurse in meeting these needs is:

> truly unique because she is the only person to care for patients on a continual basis. (p.12).

Therefore she advocates that the nurse is "the care specialist".

Authors such as Roboobi and McEwan (1968) Kinloch (1968) and Brookes (1969) continue to stress the importance of caring for the "whole" person. Roboobi and McEwan (1968) believe that patients are entitled to nursing care that incorporates the mental health aspects of care as well as the physical aspects if they are to be restored to health again.

Just how to provide this care of the "whole" person is a subject discussed frequently in the journal articles in the 1970's. Many authors also emphasise the need to return the nurse to the bedside to enable her to provide patients with the elements of the care dimension of nursing and not just be a superviser of nursing care. Christensen (1976) like Horne (1975) suggests that nursing should be provided by registered nurses (p.3). Marquand (1970) Allen (1970) and Christenson (1976) consider that team nursing would be the answer to this problem for it would allow nurses to provide "patient-centred care to a group of patients" (Marquard) (1970, p.9). While Dworkin (1974) Jollands (1974) Holloway (1974) Hutchinson (1975) and Kinross et al (1976) discuss the concept of the nurse specialists. Hutchinson (1975) advocates that:

> the clinical specialist gives care and advice as he/she perceives the need to specific patients, while at the same time she remains directly available to every patient to ensure that he or she is given optimum care. (p.7).

Alternative approaches of primary care nursing and individual patient assignment are discussed by Christenson (1976) and Collet (1977) respectively.

To sum up, Cameron (1963) believes that in looking back over the years "nursing development has been affected by three propositions, 'for', 'to' and 'with'". In the early years of the century:

> things we did were "for" the patient.... From then our next move was to do things "to" patients.... Today nurses are endeavouring to work "with" patients.... Quality nursing "care" is concerned with both health as well as sickness and with the patient as a person.... I... make no apology for quoting one of the greatest of our missionaries Miss Nightingale, when she said, "that the sick person must be treated rather than the disease, that universal hospitalisation will not give

> positive health, and that nursing must hold on to its ideals, but must change some of its methods. (p.11-12).

Orbell (1960) suggests that the basic elements of nursing, the elements associated with the art of nursing - that is the:

> nuturing or caring for those who are sick or in need of such care... will always, we hope, remain the same. (p6).

For as Taylor (1938) states it is in the nature of nursing to care for and minister to the patient.

THE CURE DIMENSION

Some of the important elements in this dimension relate to the activities pertaining to observational skills. Valentine (1908) in an article about district nursing, a service that was soon to be commenced, extolls the vital importance of a nurses observational skills. He states that by:

> daily reporting the patients temperature, pulse, respirations and so forth the doctor may judge whether a visit would be necessary. (p.113).

Gordon (1908) in discussing the nursing of mental cases comments that nurses must observe these patients more keenly for symptoms and that any slight modifications must be noted and that observations must be constantly made. Thus the importance of the elements of functional status and the ability to judge a patients progress is emphasised.

Some importance of the key element of observation can be gained from MacEarchearn's(1926) statement:

> The nurse...must keep an ever watchful eye on the patient to make accurate minute to minute observations on the development, progress and course of the disease during the 24 hours. The nurse's ever watchful eye is on the patient continously...The doctor on his visit can only formulate a proper birds eye view of the progress of his patient during the past 24 hours by study of the repeated observations made and recorded by the nurse in his absence...How important it is therefore to have these observations made accurately and expressed comprehensively. (p66).

MacEarchern (1926) goes as far as to advocate "a preliminary course in psychology" and training in observation and judgement for all nurses (p66). An unsigned article (1927) written the following year maintains that although nurses keep charts satisfactorily their other powers of observation are very poor and so "regular, systematic teaching of nurses" is suggested. In an unsigned article (1928) which lists the curriculum content of the three week preliminary course commenced at Dunedin Hospital the subjects listed include: ward reports, their uses and importance; T.P.R., Chart making and observation of stcols and urine" (p181).

The Report of the Committee on Education of the International Council of Nurses (1931) (refer Appendix F) lists observation of patients and reporting and recording as some of the duties and responsibilities of professional nurses. Besides the observations incorporated in the Dunedin Hospital Preliminary course they include:

> taking orders, writing up reports etc. Observation of conditions causing or complicating disease such as bad housing and insanitary conditions etc... (p90).

The power of observation is therefore considered of vital importance in all types of nursing. An unsigned article (1934) suggests that keen observation of symptoms should rank in importance with:

> sympathetic understanding of the patients mental reactions...good techniques in surgical treatments, and skill in giving treatments. (p54).

Over the years observational skills continue to be a highly visible element in nursing practice as seen by their inclusion as one of the main functions of the nurse's role in the World Health Organisation Report (1956). This report states the first function of a nurse is:

> giving skilled nursing care to the sick and making accurate observations of the patients physical and emotional reactions to treatment and to his environment. (p205).

Turbott (1957) in his list of essential nursing responsibilities extends this statement to incorporate:

> communicating these observations to other members of the health team or other agencies having responsibility for that particular situation. (p107).

Turbott (1957) also emphasises the importance of nurses assessing the patients condition and progress to enable them to give skilled nursing care in accordance with the patients individual needs. The nurse he believes has a responsibility to participate with other health team members in analysing patient needs and planning appropriate care.

Over the years the frequency of references to the need to develop nursing care plans based on the needs of an individual, increase. McKechnie and Miller (1971) believe

that to devise such a plan nurses must be qualified in observation and assessment skills and be able to interpret effectively the information gathered as a result of these skills. Cameron (1963) suggests that in developing individual plans for nursing care, nurses must comply with medical orders and co-ordinate functions and activities of other members of the health team in order to provide total patient care.

Marquand (1970); Dworkin (1974); Jollands (1976); Christensen (1976); and Hopkins (1981) also cite observational skills as being of importance to nurses in the developing of appropriate care plans for individual patients. Hopkins (1981) believes that constant evaluation and assessment of a patient's needs is necessary to ensure that we really understand a patient's problems and needs and that we do not base our conclusions upon incorrect perceptions.

Orbell (1960) suggests that as medicine becomes more complex the importance of a nurse's observation increases.

> Progress demands that she give more time to being the eyes and ears of the physican . (p.7).

In a further article by Orbell (1962) she stresses that:

> newer methods often require more constant supervision. Physicans and surgeons have to rely more and more on the accurate and intelligent observations of the nurse...(therefore) nursing requires a high standard of intelligence and competence...good judgement and intelligent decision making based on a...solid background of knowledge and comprehension are vital. (p.9).

Broe (1961) believes that observation "is a combination of professional skill and intuition" (p.23). Cameron (1963) while acknowledging the importance of accurate patient observations warns that true efficiency in nursing "is only a means of meeting the patient's needs" (p.14). For

as a W.H.O. Release (1967) points out, nurses must observe and assess the need for nursing care (p5). Salmon (1968) stresses the need for nurses to observe patients' physical and emotional situations, while Burgess (1972) emphasises the need for nurses:

> to give clear and concise accounts of her observations...(for) the creditable observations of the nurse are of paramount importance in the decision to continue or rethink the treatment in progress. (p5).

Austin (1979) when discussing new directions in nursing suggests that nurses are now not only assuming some of the physicians traditional functions such as primary diagnostic screening and medical evaluation but new roles are developing in intensive care units which use complex machinery whose function the nurse must also observe. Thomssen (1981) delineates some of the equipment in use in Intensive Care Units which nurses must monitor along with the patient as:

> cardio-monitors, ventilators, chest drains, oxygen...numerous introvenous lines...blood pressure, heart rate, respiration, urine output C V P etc etc. (p27).

Buick-Constable (1969) asks if we can really say with any certainty that nurses in the future will not monitor machines, instead of people. Therefore, over the years although nursing may have changed some of its observational methods, observations have continued to be an important element of nursing practice.

During the years of this time period there is constantly an abundance of articles relating to cure aspects of treatments, medicines and surgical appliances. In the early years of the twentieth century many of the articles refer to infectious fevers and the new branches of medicine and surgery that were developing. For example Rochfort

(1908), Mason (1908) MacDonald (1913) and Barnett (1913) discuss the treatment of tuberculosis, Herbert (1909) diptheria; Irving (1909) smallpox vaccinations, and Gill (1911) and McLean (1912) typhoid fever to name but a few articles. These articles were interspersed with other conditions and their treatment such as acute rheumatism (unsigned article, 1908), gastric ulcer (Young, 1909), pelvic peritonitis (Brann, 1909); epilepsy (E.M.L. 1914); gunshot fractures (unsigned 1916) and recent surgical advances (Stout, 1914).

As well as the articles about specific diseases and their treatment in the first half of the century an increasing number of articles mention the importance of bacteriology. Herz (1908) documents advances in bacteriology, while Keach (1911) reports on the advances in disinfectants and the role of sanitary inspectors. Other articles emphasise the need for sterilization and the use of antiseptics such as Palmerlies (1912) and Champtaloupe (1911) and Christie (1914). Ligat (1917) discusses the use of brillant green and flavine in treating infected wounds and Purdy (1910) tells of the spread of infection by fleas and flies.

As the science of bacteriology increased in depth and scope not only more knowledge about the cause of disease and its treatment were engendered but also new methods of how to prevent them emerged. Irving (1911) supported the idea of smallpox vaccinations; Richardson (1911) and McLean (1912) reported upon the use of typhoid vaccinations. While Montgomery (1923) discussed the concept of immunity gained from vaccinations. In later years other articles report on new vaccines and methods of detecting immunity were developed such as the B.C.G. (W.H.O. 1964); Smallpox (Candau 1965); rubella (Dept of Health, 1970), and T.A.B. innoculation (Knights 1961). Francis (1952) suggests that immunisations "are an

additional weapon in our armoury" (p.203). Although articles relating to bacteriology slowly decline after the turn of the century they do not disappear completely for the importance of asepsis, antiseptics and sterilisation continues today.

One of the other great advances of the first half of the century which was obviously of great interest to nurses judging by the journal articles was the advance made in chemotherapy. In 1939 the first reference to the use of the wonder drug sulphonamide, which could be used to treat bacterial infections, is to be found. While in 1944 the first of many references to the use of the wonder drug - "penicillin" in modern medicine is made. Dooley (1946) in telling of the use and history of penicillin in a nine page article concludes:

> remember that penicillin may be a wonderful drug, but it is not a wonder drug, a panacea. (p.342).

An unsigned article (1945) by a member of the medical profession sums up the advances in the first half of the century in the following words:

> The discovery of bacteria and developments in the science of bacteriology have increased our knowledge of the large group of infective diseases and improved our treatment of them... the application of chemistry to therapeutics has given us arsenical drugs...synthetic drugs and the group of sulphanamide drugs with their remarkable effects...Most recent is the introduction of penicillin, which has proved to be the perfect chemotherapeutic agent. (p.5).

These advances were to have a profound effect upon nursing practice in the future. Although journal articles relating to many infectious diseases and their treatments declined after the middle of the century, judging from the journal articles, some diseases such as tuberculosis and venereal

disease in particular continue to prevail. While articles about diseases such as hepatitis, hydatids, leprosy, tetanus and smallpox occur more often. Furthermore the decrease in infectious diseases led to increased visibility of the chronic lifestyle diseases and articles relating to alcholism, cardiac conditions, cancer, hypertension, accidental injury, puraplegia, diabetes and chest conditions become more common.

Sulpha and penicillin were by no means the only drugs to be discussed in journal articles. From the 1940's onwards it became common for many journals to include small snippets on different drugs and their uses, indicating the importance which nurses placed upon drug therapy. Other articles incorporate discussions on a specific type of treatment or surgical appliances that has been developed or document advances in nutrition. For over the years many advances in nutrition, such as the discovery of vitamins, were made enabling the control of deficiency diseases. Such advances Broe (1959) suggests:

> have extended and changed the scope of medicine and treatment of diseases. (p.125).

Another important element of nursing care to be considered under the cure dimension relates to the body of technical skills and procedures needed by nurses. Technical skills and procedures were incorporated in Nightingale's curriculum for they were considered one component of nursing. However, as time went on and progress was made in medical science and technology the technical skills and procedures became a major part of nursing. The increase in the nurses' technical duties particularly began to be noted in the 1920's when several articles, such as an unsigned article (1927) commented on the fact that nurses were so busy with the technical duties that the other elements of nursing care were being neglected. Taylor (1938) warns that "skills as demonstrated in physical treatments are

not the only essentials of nursing practice. A view echoed by unnamed Post Graduate Student (1938) who said that:

> manual dexterity alone does not constitute successful nursing. (p53).

In the same year an unsigned artcle (1938) advocates "that besides performing technical duties accurately nursing also consists of nursing care; giving advice and health instruction and the establishment of a personal relationship between the nurse and her patient.

Although the suggested curriculum devised by the International Council of Nurses Education Committee (1931) incorporates therapeutic treatment (see appendix F) the number of treatments is very limited when compared with the 1948 New Zealand curriculum guidelines (refer appendix G). According to Orbell (1960) over the years:

> the medical profession [has] constantly [been] handing on to us many of the highly skilled and technical procedures and responsibilities which were formerly the doctor's province alone...(Also) medical and surgical techniques of care have become increasingly complex and doctors have had to rely more and more on the expert observations and judgements of nurses. (p6)

Evidence supporting the increase in technical skills and procedures is to be found in journal articles and in the curriculum guidelines (in appendix G). Although prior to the 1940's some articles report on the increasing number of technical skills being incorporated into nursing practice after the 1940's the number of such articles rapidly gathers momentum. As Gascar (1968) states "you can't stop progress" (p5) and Buick-Constable (1969) suggests that in future years we may see:

> skilled and highly trained nurses able to handle complicated machines designed to monitor patients every living minute. (p5).

Salmon (1969) believes that in order to use automation successfully the nature of nursing must be clearly understood and technical and interpersonal skills carefully blended for "the purpose of nursing has never been merely to help cure" (p2). Nurses must care as well and as Powell (19661) advocates:

> skills in human relationships, communication and management must keep pace with advances in technical skills. (p20).

From 1965 articles such as those by McKenzie (1972), Scott (1973) and Walker (1981) discuss the impact of technology upon nursing. McKenzie (1972) comments that:

> now the nurse is expected to have technological skills...she has to read oscilloscopes, operate artificial kidney machines, nurse people on respirators. (p26).

To sum up:

> By 1945 more progress had been made since 1900 than in the previous 300 years.
> (Hanson, 1956, p25).

With advances in medicine have come increased technical skills and procedures to the point where Broe (1961) believes nurses must ask themselves to what extent are these skills an essential part of nursing care. Or should we leave some of them to technicians to do. "Cure" like "care" is an essential part of nursing but Cameron (1968) believes that the nurses main role is to "care" not "cure". Regardless of what the answer is the care versus cure debate is one fact that has not changed over the years in that:

> good nursing consists simply in observing little things, which are common to all sick and to each sick individual...It is just the observation of all these things, no unintelligible influence which enables one woman to save life, it is the want of such observation which prevents another from finding the means to do so.
> (Nightingale, 1859, p.130-131).

THE PROTECTION DIMENSION

Articles stressing the importance of one element of this dimension of nursing practice - the rules and precepts relating to hygiene and sanitation in order to avoid sickness - abound during the early years of this century. In the second issue of the Journal, Gordon (1908) stresses the importance of hygiene to prevent enteric fevers and Herz (July 1908) expounds upon the need for cleanliness to the "extreme" (p85) to prevent infections. Many other authors such as Bennett (1910); Bagley (1912); MacDonald (1913) and Barnett (1913) for example advocate the importance of hygiene to maintain health and to prevent such infectious fevers as tuberculosis, smallpox, enteric fever, poliomylitis, scarlet fever or typhoid fever.

Appearing simultaneously with these articles and overlapping to some extent are articles on the importance of medical and surgical asepsis. Herz (1908), while discussing the concept of surgical asepsis warns nurses to be sure "to sterilise well" (p.86) in order to prevent infections. Robree (1910); MacDonald (1913); Boulby (1915); and Herbert (1917); all stress the importance of the aseptic technique to prevent wound infections. Similar articles by Christie (1914); Smith (1914); Bonney (1921); and McCawo (1922) support the old adage "prevention is better than cure". Moore (1950) reminiscing on her nursing

days in the early years of this century also comments that asepsis was of vital importance. As shown in journal articles these two elements of nursing practice were very prominent in the first half of the century in particular.

In the 1940's a hiatus of such articles appears again, as evidenced by a series of articles in the 1940, 1941 and 1942 journals which discuss the problem of hospital acquired infections and ways to prevent them occurring. The Education Committee of the New Zealand Registered Nurses Association (1942) emphasises that if infections are to be prevented there is a:

> need for nurses to have a much better understanding of bacteriological principles. (p.39).

The series of articles stress the importance of both medical and surgical asepsis and a better understanding of measures to prevent infection. All of which she considered to have "a bearing on nursing technique" (British Medical Research Council, 1942. p. 191). In the later years of this century articles pertaining to these elements lessen to some extent.

Throughout the century Nightingale's concept of the need to nurse the well and the sick has received continual emphasis in journal articles. In the second issue of the journal McLean (1908) states that

> now the trained nurse is employed as much in the prevention of disease, as in the nursing of its victims, when present she is called to act as a missionary in disseminating ideals of hygiene, to watch over the children and their growth and during their school lives, to assist members of the medical profession in their fight with preventable disease....
> (p.50).

Bagley (1912) while elaborating upon Nightingale's concept describes the new preventive services arising in the community at the time as "the Missioners of health at home" (p.21). While MacDonald (1913) and Barnett (1913) when discussing these nurses' roles emphasise the need for them to ensure their patients have plenty of fresh air, exercise, proper diet and health education in hygiene and sanitation to prevent disease by:

> first increasing the resisting power of the individual, secondly by keeping out germs.
> (Barnett 1973, p.22).

Over the years articles regularly appear in the journals emphasising the role of the different nurses involved in preventive work. These articles incorporate the elements of nursing, associated with the protection dimension of nursing practice which are so important in maintaining health and wellness. One such example is the series of articles on public health nursing in 1945, written by members of the New Zealand Nurses Association.

Some importance of the protective or preventive elements of nursing to the nursing profession can be gauged by the frequent references to preventive nursing, and the growth of the preventive nursing services over the years. Valentine (1908) advocates the need for nurses to pursue this line of work. A sentiment endorsed by McLean (1920) when she stated:

> the most crying need for this country is for nurses...to take up the preventive work and so benefit the country. (p.8).

A bevy of other articles stress the importance of this work such as an unsigned editorial in 1926, another in 1933 states that the "role of the trained nurse is to prevent disease" (p.113). Lambie (1960) Beck (1961) and

Sand (1954) who suggests that:

> in the last sixty years nurses have been increasingly occupied with the protection and strengthening of health against attack by disease in addition to helping the sick recover. (p.43).

The growth of preventive medicine practiced "in collaboration with curative medicine" (p.103), Smith (1942), felt signalled the advent of a co-operative health service in which nurses provided a series of services to assist people from the cradle to the grave. An unsigned editorial (1956) divides the preventive nursing services into;

a) ante-natal care - obstetrics and pediatric - care of the small baby and pre-school child
b) immunisation programmes
c) work in consultive health clinics - physical and mental health
d) occupational health hazards. (p.3).

The preventive services incorporate the roles of the plunket nurses, district nurses, public health nurses, native nurses, school nurses and industrial nurses. All these nurses incorporate the elements of the protection dimension into their nursing roles.

Turbott (1957) documents the increasing importance and number of nurses roles in providing preventive services over the years and to those already mentioned he adds; health camp nurses, armed services nurses, health nurses in the South Pacific Health Services, geriatric nurses employed by voluntary agencies and medical social workers. In 1957 he estimated that as many as "one in every three of our registered nurses" (p.107)were employed in preventive activities. Therefore over the years as Turbott (1957) advocates medicine has continued to broaden until today one of its main missions is again prevention of disease.

> More of these preventive services evolve as our community life develops...(in order) to protect the whole community. (p.103).

Throughout the century the concept of illness prevention broadened and in 1945 an unsigned editorial suggests that two distinct branches began to emerge due to the reduction in epidemics and the increase in chronic or life style diseases :- public health and social medicine. Public health included methods to safeguard the environment - good nursing, general sanitation, safe water supplies, cleanliness in food preparation and handling and prevention of epidemics. Thompson (1948) while considering the modern methods available to combat and prevent epidemics - inoculation, education and knowledge about disease transmission - warns against complacency and advocates the need to be on the alert and ensure basic hygiene and sanitation roles are continued for there are:

> diseases which assail us...against which we have little or no defence. (p.50).

Examples which he gives are smallpox, malaria, venereal disease, tuberculosis and poliomyelitis. Subsequent articles in the 1960's refer to the value of immunisation from smallpox (W.H.O. 1962, and Candau, 1965). Tetanus (Public Health Dept. 1965) B.C.G. (W.H.O. 1961) T.A.B. inoculation (Knights, 1981) and the New Zealand Immunisation Programmes (Health Department 1963).

As epidemics lessened, in the 1960's the area of social medicine began to receive greater emphasis by nurses in the preventive health area. One of the first examples was Bell (1942) with a series of articles on good nutritional habits, and another by the Hydatids Research Unit on the prevention of hydatids (1960). Hill et al (1968) state that:

> disease prevention, until comparatively recent times, has been largely beamed towards the elimination of communicable disease, although the encouragement of healthy living in terms of diet, cleanliness, exercise and relaxation, have always been a part of the programme. Because our disease problems have changed with the accent on chronic rather than acute disease... more emphasis needs to be placed on this broad spectrum of healthy living... Sickness (often)... the result of failure to adhere to the very simplest principles of healthy living. (p5).

The number of articles from 1960's emphasising the importance of nurses keeping people healthy and stressing the need to prevent accidents increases significantly. Such articles include discussion on safety in the home - prevention of accidental poisoning in children (Silverwood 1967) and home accidents (Taylor, 1972); prevention of road accidents (Pickering, 1967) and the need to wear seat belts (Arthurs, 1972); children at risk (1970 and 1979) and others on accident prevention in relation to nursing and nurses. These articles run side by side with others discussing air pollution (Health Department, 1967); the danger of noise (Audiology Centre, 1969); dangers of smog (Thom, 1970); and how to prevent heart disease (National Heart Foundation, 1967). Thus the need to nurse the "sick" and the "well" is obviously accepted.

Over the years besides the articles referring to the importance of preventive and precautionary measures in nursing; and the need to maintain a patient's safety, other articles refer to the importance of accurate written and oral reports, as one of the nurses professional responsibilities. As early as 1908 Valentine comments upon the importance of nurses "accuracy" when reporting on a patients condition so that the Doctor may judge whether to visit the patient or not. MacEarchern (1926) states:

> how important it is...to have these observations made accurately and expressed comprehensively. (p66).

The Dunedin Hospital Preliminary School curriculum also emphasises content such as;

> an explanation of hospital rules and etiquette etc; the uses and importance of ward reports; care of patients belongings; admission procedure; administration of medicines and chart making. (Unsigned article,1928, p181).

The suggested curriculum of the International Council of Nurses (1931) emphasises the important matter of observation of patients; reporting and recording observations; keeping charts; taking orders; writing reports, and the need to maintain good standards of nursing service.

Articles over the years also talk of the responsibility of nurses in relation to the administration and checking of medications; signing of consent forms; the need to make accurate reports both oral and written; and the importance placed upon nursing decisions and assessments. Thompsen (1968) states that a nurse:

> should be skilled in discretion, and in judgement, and be technically competent. (p19).

A W.H.O. Release (1967) advocates that over the last 20 or 30 years "nurses duties have become increasingly difficult and responsible" (p5), and this article goes on to state that error in judgement and in carrying out nursing activities may be fatal. A situation that the nurse today is very aware of. Gardiner (1978) when describing the nurses' role in a critical care unit says responsibilities in such a unit are very great. A statement agreed with by Hopkins (1981) when he advocates the import-

ance of the accuracy of the ward reports and nurses responsibilities in rehabilitation units.

Over the years, Cameron (1963) believes the nursing care of patients has become more complex with the inclusion of highly technical procedures which require more skill and a broader type of knowledge base. She also comments on the increasing magnitude and complexity of our responsibilities" (p12) which increases the importance of our growing professional responsibilities and emphasises the need to provide quality nursing care concerned with health as well as sickness. Salmon (1968) suggests that another responsibility of professional nurses is to carefully evaluate her own practice and constantly refine and extend nursing knowledge and skills.

To sum up Chambers (1956) suggests that the importance of preventive medicine has as its aim to "keep people well" (p77). To do this she believes a nurse needs knowledge about how to keep healthy; how to promote health and the preventive measures used to keep people healthy. Henley (1964) defines these preventive methods more explicitly:

> Sanitation, control of infectious diseases, mass innoculations, more x-rays, safety in industry and education of the public in matters of health. (p6).

Thus over the years elements of nursing practice pertaining to the protection dimension of nursing have remained very visable. According to Orbell (1960) great changes have occurred over the years since Nightingale established modern nursing. Nurses have had to keep pace with the new scientific knowledge and the sociological factors that have influenced nursing over the years. Thus:

> a much broader concept of the patient...as a person...a member of a community with a family home and occupation...The scope of

> nursing has increased and we have taken nursing out into the houses and occupation of the people, where in fact it actually started centuries ago. (p.6).

THE TEACHING DIMENSION

The elements of nursing comprising this dimension are closely allied to the elements of the protection dimension and mirror the changes associated with that dimension over the years. In the early years of this century advice and teaching received many references in the journals particularly in relation to the dissemination of knowledge about the rules and precepts relating to hygiene and sanitation to encourage healthy living. An unsigned article (1908) about the role of the district nurses reports that "people come to (her) for all sorts of advice" (p.118). Church (1908) when discussing the case of patients with acute rheumatism stresses the importance to cultivate in patients "care in regard to clothing, exercise, food and habits generally (p.115). Another unsigned article (1909) tells of the good work done by Nurse Hei "in teaching the natives something of hygiene" (p.157) and 1911 during the Health Department's campaign against tuberculosis health education is cited as the main role of nurses in preventing this disease.

Bagley (1912) called the community nurses "missioners of health at home" and stressed like McLean (1908); MacDonald (1913) and Barnett (1912) the importance of health education for the prevention of infectious diseases. Barnett (1912) discusses the nurses' role in the prevention of cancer. Colquhoun (1912) comments that:

> much sickness and suffering is due to ignorance of the simplest rules of living - the need of cleanliness, fresh air, suitable

> diet, properly cooked, care of the teeth, suitable clothes and exercise.... (p125).

The increase in preventive nursing roles offered an ideal means of providing health education in the homes and as an unsigned editorial (1918) suggests:

> in almost all the schemes put forward for the betterment of the race in regard to health ...(include) education for the prevention of sickness. (p151).

Barnett (1913) believes that nurses were good educators because "women can impart and teach better than men" (p22). Health education she maintains can be carried out by all nurses at the bedside in the community. Therefore every nurse should be able to converse on the subject of hygiene for it was one way to promote health and prevent disease. King (1921) speaks of the desperate need to dispel ignorance about health and the peoples' great desire to obtain knowledge of "primary essentials of health and life generally" (p82).

The year 1920 saw the creation of the Public Health Department and under the Department's auspices came the public health and school nurses who were charged with the prevention and control of infectious fevers in the community. To carry out this role they were to disseminate knowledge of infections and teach how to prevent them by sanitation and hygiene methods. So health teaching was considered one of the main elements of nursing practice, as shown by an article from the American Journal of Nursing published in Kai Tiaki in 1924.

> Health education is the password of the day. The wide dissemination of information concerning sanitation and hygiene is now considered to be one of the most important activities in any public health programme...(it will) provide change in the population's attitudes

> towards sickness and health and in their efforts to prevent one and maintain the other. (p96).

Inglis (1929) believes that "by teaching the health laws we ourselves enter into the fuller complement of life" (p157) as the nurse prevents relief of suffering. Taylor (1938) quotes the fact that Nightingale in her notes on nursing (1858) deplored the fact that the laws which God assigned in relation to our bodies have not been taught to mothers.

> The laws which make these bodies into which he has put our minds - healthy or unhealthy organs of those minds - are all but unlearnt. (Nightingale 1858 p6).

Lambie (1938) when discussing the preventive aspect of nursing advocates that the role of health education may in the future mean that a nurse will be a "health" nurse first and a "bedside" nurse second. In an editorial (1942) published during the war years a message from the Minister of Health is contained appealing to all:

> nurses to teach and practice the habits of health...in order to cultivate health habits such as fresh air and sunshine and avoidance of excesses which lead to ill health. (p35).

Corkill (1946) when writing on the roles of a nurse in homes states that although general health education is an important dimension of the nurses role:

> it must be recognised that unless adequate staff is provided, the district nurse who has a crowded day cannot spend time on more than absolutely necessary routine. (p58).

From the late 1940's onwards increasing emphasis is placed upon the importance of health education by nurses as more frequent references in journals reveal. Mackintosh (1954) suggests like Lambie (1950) that nurses need to be educated to undertake health teaching as it has become such an important aspect of a nurses role and not every person is naturally a good teacher.

Mahler (1977) advocates health is everyones business therefore he stresses the importance of nurses involving patients in their own care. Turbott (1957) believes that nurses must be trained "to take part in family and community supervision" (p.106). Cameron (1963) stresses that patients must be encouraged to take active participation in health decisions. Nurses must:

> give (patients) the facts to help him understand his situation and then provide the confidence so that he can use these facts with his own knowledge...to make good health decisions through their active participation and through health teaching. (p.12).

The number of articles emphasising the need to encourage patients to participate in their own health care increases over the years. Selby (1972) advocates that patient participation and increased awareness helps to prevent accidents and injuries, and thus promotes health. When discussing patients suffering from spinal injuries Hopkins (1981) emphasises that these people must learn to live with what is left and so they must be included in their own care. Hill et al (1968) suggest that only by patient participation can any advance be made in conquering the new set of health problems associated with the increasingly visible chronic and lifestyle diseases. Pilson (1963) also supports the need to involve people, as do Gardiner (1978); Bell (1973) and Fryatt (1981) who like Hopkins (1981) believe that families should be encouraged to participate in patient care if they wish; as it not only gives them satisfaction

but it "also benefits the patient" (p.9) by providing contact with the family and encouraging their support.

Orbell (1960) stated that:

> the nurse must needs be a teacher if she is to fulfil her obligations to the patients, and health education has become of major importance in the function of the nurse. (p.7).

> It is the trained nurse who can carry information, help and comfort to the sick and who carries out education, demonstration and practical help.... (p.48).

Turbott (1957) believes that it is the nurse's responsibility to teach the patient as she is with him more often than the doctor and can capture "the teaching moment" (p.106). She can educate a sick patient about healthy living and reach out into the community to educate via the preventive nursing services.

Articles in the journal such as an unsigned editorial (1965) emphasise the fact that "to be effective health education must be in a simple and easily understood form" (p.155). Beck (1961) and Kerr (1961) also emphasises the importance of effective communication in health teaching. Other articles report on the material available to augment the nurses talk, such as films, posters, pamphlets, advertisement, articles on radio and in magazines and newspapers. The New Zealand Registered Nurses Association in an article published in 1955 to report on the establishment of a committee by the World Health Organisation to study health education, comments on the importance of the Committees future work and emphasises the need for nurses to carry out more health education. The following excerpt appears in this article:

> The nurse is a teacher of health, she goes into the homes of people to teach both prevention of diseases and its cure; she

> teaches the patient in hospital the nature of his illness in language he can understand, so that he may endure it, co-operate in his own cure, and learn how to avoid becoming ill again. All nursing personnel have a moral obligation to the community to teach the prevention of illness. (p.35).

> Showing and teaching people how to maintain health and thus avoid illness.
> (New Zealand Nurses Association 1956 p.202).

An article published by the New Zealand Registered Nurses Association in 1956 in relation to the development of the Plunket Society, quotes the following extract from a 1910 Annual Plunket Report in support of this point of view.

> Not only do they advise the mother upon the care and feeding of her infant but also upon the general hygiene of the home, especially with regard to ventilation, clothing, bathing, cleanliness, preparation and care of food..., (p.48).

Turbott (1957) while supporting this point of view stresses the fact that health education is one of the "five essential responsibilities of a nurse" (p.107). Broe (1959) Orbell (1960) and Pilson (1963) are some others to agree with this statement.

Around the same time that the "social medicine" activities advanced health education discussed in the journals mirrored this change. As Hill et al (1968) stated a new set of health problems arose with which the health service had to cope. In 1962 Peake suggests that health education should be broadened to include curative, restorative and rehabilative aspects in relation to health. For, as Pilson (1963) states that health education must be responsive to the needs and problems of the community, and health education should include all areas of the

community. In support of this statement Hammond (1965) writes about needs of the elderly and their relatives in regards to health education. Clements (1966) and Talbot (1968) discuss the teaching needs of the young mother and her child. Graham and Sharp (1981) describe patient teaching for children, and Somerset (1966) develops the theme for junior nurses, patients and relatives. For as Salmon (1972) and Mahler (1977) advocate "health is everybody's Business".

> If ever we're going to do something worthwhile in accidents, cardiovascular diseases and cancer it will depend on our abiity to motivate the populace towards preventive actions by people themselves.... (Health Education) should fit the life patterns of the community it serves, and should meet community needs and demands. (Mahler, 1977, p6).

To sum up in spite of the fact that health education and advice has always been a visible element in nursing the World Health Organisation (1967) believes that this role is often neglected to the detriment of the patient. A point of view also shared by Englefield (1980).

> It is not enough to cure the patient and send him home. He must be taught how to protect his health first by following doctors orders... and also be complying with general rules of health.
> (World Health Organisation, 1967, p5).

CO-ORDINATION DIMENSION

As with the other dimensions of patient care this dimension has remained an important part of nursing care over the years. Maude (1908) suggests that it is the nurses role to:

> carry out the doctor's instructions...and to co-ordinate and receive orders from him. (p36).

An article the following year by McLean (1909) refers to the fact that nurses are anxious to be seen as co-ordinators and co-workers with the medical profession. Bagley (1912) writes of the nurse's role in co-ordinating and managing a patient's relatives and their friends, a task needing "a great deal of tact" (p22). While in 1922, Lewis suggests that there are many matters such as the co-ordination of patient care, management of the ward and supervision of nurses which only senior nursing staff "are competent to deal" (p214). A report given at the 1927 Nurses' Conference which appears in the journal as an unsigned article on the role of the ward sister states:

> It is her duty to see that orders given by Doctors for the care of the patient are attended to promptly and accurately;... to maintain order in the ward;... (have) everything in readiness for the Doctors and supervisors;...supervise nurses and anticipate patients' wants. (p205).

A similar point of view is offered by MacEachern (1926) when he states that:

> the success of the treatment rendered to any patient in a hospital depends largely upon the effectiveness of the unit services and this applies particularly to nursing because of the ultimate relation it has at all times to the physical welfare of the patient. (p65).

An unsigned article (1934) stresses the importance of a nurse co-ordinating the activities not only of the doctor but also with every individual with whom contact is made. Causley (1939) suggests that such a list includes people

such as the almoner and any domestic staff as well as those who give direct patient care. Carter (1946) sees the nurse's role as being one of "a liaison officer between the patient, physician, hospital organisation, relatives and domestics. The ward sister is the link with the rest of the team" (p317). Over the years, Orbell (1960) believes that:

> the widening of the health and social fields has brought other people into the picture and other professions have sprung up and taken for themselves much of the work which formerly belonged to nurses. (p6).

This situation led to the need to define nursing and its activities. It also increased the amount of time needed to carry out these co-ordinating activities. In discussing a hospital job analysis and its implications for the New Zealand setting Orbell points out that nurses spent considerable time in "non-nursing duties" necessary for the organisation of the ward and "maintaining contacts with other departments" (p158). While Lambie (1952), Turbott (1957), Orbell (1953) and Whaiora (1960) emphasise that nurses are an important part of the team approach to patient care today, Sand (1954) states:

> the nurse forms the pivot around which the... others revolve. (p. 43).

Thus the nurses co-ordinating function is seen as an important activity. A similar situation exists among the community health services for as Cameron (1946) suggests the district health nurse spends a lot of time in liaison work with other health team members. Turbott (1957) substantiates this view by quoting from the World Health Organisation 1956 Report on the essential responsibilities of nurses.

> The nurse is a very valuable liaison between the patient and (other health team members). ...(She) gives guidance to auxiliary personnel...participates with other members of the health team in analysing the health needs, determining the services needed... and the equipment needed to carry out those services effectively. (p.107).

Broe (1959) believes that this situation leads to increasing responsibility, for additional administration and co-ordinating functions will continually enlarge as the numbers of people responsible for health care increases. Like Orbell (1960) she sees this aspect of nursing as causing the nurse to move away from the bedside and leave the nursing of patients to auxiliary personnel. This, Orbell (1960) suggests could mean that:

> nurses lose the art of giving that basic personal care which...constitutes nursing and means so much. (p7).

Broe (1961) and Orbell (1960) both advocate the need to define the scope of nursing practice in order to distinguish nurses' duties from others working in the "Health Service." Peake (1962) offers the view that nurses should delegate their non-nursing duties to others and return to the bedside. In another article Kinross (1972) reports on the use of household and clerical staff in hospitals to reduce nurses of non-nursing roles and return them to the bedside.

Chambers (1962) believes that co-ordination covers an immense field of effort (p.13) because:

> 'ound the edges of everyone's work are found the edges of some-one else's work. If these edges do not dovetail neatly, there is a break in the total services, a lack of harmony and frustration for someone. (p.13).

The fact that patient care is becoming increasingly fragmented due to the multiplicity of people looking after one patient, is noted in articles by Jarrett (1961) and Beck (1961). Cameron (1963) states that "co-ordination of patient care.. is a major responsibility of a nurse" (p.13) as a patient must be assured of continuity of care and prepared to move onto the next stage of care. This a nurse can do because she is the team member with the patient twenty-four hours a day. This view is supported in articles written by Beck (1961); Goodwin (1960); Dunn (1962) and Watts (1963). The importance of the nurse as the humanising factor in the hospital setting, is suggested by Candille (1963). Thompson (1968) suggests that over the years:

> the nurse has changed from a person who worked largely alone and self-directed to one who shares in a minute and highly specialised division of labour; from one whose relationships with those she worked among were close, intimate and personal to one whose working relationships...are subjected to strong pressures toward becoming both imprsonal and segmented. (p.19)

In the 1970's Kennedy (1971); Boyd (1973); Hines (1973) and Robb (1974) suggest that nurses need to be educated to carry out this co-ordinating role.They argue that over the years health care has become increasingly complex, and therefore difficult to co-ordinate. The problem is further compounded by the usual emphasis placed on "functional" rather than on "team" nursing. The need to also involve patients in the health care team with the health care workers, is an idea offered by McKay (1973).

To sum up over the years the co-ordination dimension of nursing practice remained an important aspect of nursing practice. But the elements comprising this dimension have changed as changes have occurred in health care. Initially, nurses co-ordinated the activities of other

nurses, the doctor, the patient, and the relatives. Over the years however the health team has increased. This has necessitated changes in the elements associated with this dimension of nursing practice and led to the delegation of non-nursing tasks to other health team personnel together with the need to discover new ways to organise nursing care. The change in elements comprising this dimension have enabled the nurse to carry out her role of co-ordination between administration, medical and ward staff more effecitvely.

PATIENT ADVOCACY DIMENSION

As with the other dimensions of nursing practice, many references to elements comprising this dimension are made in the nursing journals. The earliest reference to be found is in one of the volumes published in 1908. A.H.H. (1908) writes that a real nurse when caring for a patient:

> will try to put herself in the patient's place in order to anticipate the patient's needs. (p23).

This point of view is echoed by Marshall (1972) over sixty years later. McLean (1909) states;

> a patient weak and in pain, in a strange place, no friends near <u>needs</u> to lean upon and regard <u>one</u> as his nurse. (p2).

Bagley (1912) speaks of the tact and patience needed to manage patients, their relations and friends for "they often need the nurse's sympathy as much as the patient does" (p22). Lewis (1922) emphasises the importance of not divulging a patients affairs to others while J.M.G. (1923) stresses the need to establish sympathy between

each patient and ourselves so that the patients:

> know they are of importance to one person at least. (p.7).

This she believes is one of the prime considerations of the patient advocate role. MacEachern (1926) suggests that the provision of any treatment is only effective if the patient's general welfare is considered. "A good nurse anticipates readily her patients needs" (p.66) and responds appropriately if she knows her patient. The fact that a nurse must also help the patient to deal with their relatives is emphasised in an unsigned article (1956).

> There is the problem of anxious, fussy, interfering relatives who may drive a nurse to distraction and these she must handle carefully in order to further the patients recovery for mental worry is a great factor ...in any serious illness. (p53).

Taylor (1938) in an article quotes the comments of a patient who remarked:

> that during a long period of illness and tedious convalescence (his nurse)...was a spiritual friend, and advisor...It is the nature of nursing to care for and minister to the patient and not the disease or condition. (p.60).

The importance of understanding the patient as an individual person is one of the main elements of the patient advocate dimension. According to Carter (1946) the nurse is the person who is intimately in touch with the person:

> she explains; she calms fears; gives courage and notes reactions (p.316).

The nurse has the responsibility to encourage, sustain and sometimes reprove. As the nurses role becomes more

overcrowded Corkill (1946) a District nurse, suggests that this element will be overlooked and the:

> little personal attentions which mean comfort and consideration [may] be forgotten. (p58).

She advocates that the saying "No man knoweth anothers burdens" (p53) should be instilled into student nurses.

From the 1950's this dimension of patient care receives increasing emphasis. A psychological flavour appears in the articles. A number of writers stress the importance of nurses assisting patients to handle the stress induced by the complex technology used in treatments. Martin (1952) emphasises the need to preserve a balance in nursing by providing service with kindness, thought and sympathy to make:

> each patient feel that his welfare is your first consideration. (p69).

Lambie (1953) emphasises the need to also understand how the patients mind works and how he reacts. An article by an unnamed Graduate Student (1954) encourages nurses to recognise the effect of illness upon patients and their relatives. She advocates:

> a sympathetic approach to help relieve some of the interacting tensions, (p222).

and believes that in such a way a nurse may discover what troubles a patient. Turbott (1957) suggests that:

> because of her extensive and intimate contacts with the patients and families the nurse usually has the confidence of the family. (p107).

Candau (1954) explains simply that "the nurse is the patient's friend" (p107). Evans (1959) writes that only when a patient gains confidence in his nurse and forms

a living personal relationship can a full understanding of his needs be gained and the healing process completed.

Orbell (1960) believes that:

> progress demands that (nurses) give more time to assisting the patient to face not only his immediate problems, but also adjust himself physically mentally and spiritually to whatever future lies ahead of him...The very fact that we feel the need to be constantly stressing the patient and his care as our main concern may itself be indictive of our misgivings...about the nurses flight from the bedside...let us never lose the art (of giving) intimate personal service to the patient. (p.7).

Whairoa (1960) and Somerset (1964) both stress the fact that patients in strange surroundings are often worried and afraid and it is the nurses responsibility to use her communication skills to pass on by word of mouth what is occurring with the patient and visa versa. The need for nurses to provide explanations for patients to help ease their worries is emphasised by Beaumont-Orr (1960); Beck (1961); Kerr (1961) and Kelber (1965). All these authors subscribe to the view that:

> communication is a road to better understanding between nurse, patient, health team and public. (Kelber.1965 p.7).

Broe (1961); Dunn (1962); McLachlan (1962) and Watts (1963) all stress the importance of the patient advocacy role in the complex health care system. Nurses must identify patients needs, help patients to express them, give reassurance, support and keep confidences. Dunn (1962) advocates that important as this role is nurses seldom have the time to sit with patients and receive their confidences. Nursing care is often carried out as quickly as possible as nurses are so busy. Cameron (1963) believes

that the patient.

> is most concerned...with being told what to expect, and having his questions answered. Nurses...have felt that giving treatments and medications on time (are) the most important aspect of the patients care. (p.13).

Candille (1963) considers that:

> the nurse has the responsibility to read the patients mind...and gain her confidence. (p6).

The importance of developing effective communication skills which includes the importance of listening skills is stressed by McIvor (1970); Badouaille (1973); Stote-Blandy (1970); Hines (1973) and Downey (1980). However as Kaperick (1971) suggests if nurses are to retain the patient advocacy role they must find a new way to nurse the patient and de-emphasise the technical aspects of nursing care. Consedine (1980) believes that a nurse who lacks the:

> interpersonal skills will not be a good nurse...and not serve her patients well... The very essence of nursing consists of the ability to get beside the patient for a short period of time and share his life with him. (p. p14-15).

To sum up over the years articles in the journal have constantly stressed the importance of the elements associated with the patient advocacy dimensions of nursing practice.

McEwan (1974) believes nurses must:

> continue to care...Of particular concern to nurses is the...need to reflect a caring attitude, one in which the person will feel safe and be sure that all resources will

> be used in his interests...Nurses must enter intimately into the lives of people...To sustain a person the person in our care needs to know that the people on whom for a time he is dependent, understand him and the situation in which he finds himself, that they will act in concert and concord for and on his behalf. (p7).

With the increasing importance placed upon the humanistic interactional approach to nursing practice since the 1970's the emphasis placed upon this dimension of practices has extended. Gardiner (1978) suggests that the role of the nurse as a comforter and advocate of the patient must extend to the relatives as well.

> By listening to the patient's family, the nurse can learn a great deal about him and the probable area of stress with which he is finding most difficulty coping and this may assist her in the nursing care of him. (p7).

SUMMARY

Traces of the six dimensions of nursing practice can be identified in the material derived from the journal articles over the past 80 years. Fluctuations in the emphasis placed upon each of the six dimensions are apparent at different time periods. Consideration of the elements comprising the six dimensions of nursing practice reveals both constancy and difference.

Even though the care dimension and its associated elements of nursing practice are apparent over the years, in the first half of the century the "care" activities of nursing were often overwhelmed by the increasing number of "cure" activities. This fact provided the impetus for several

authors to call for the re-emergence of the caring roles in nursing. Orbell (1960) states:

> in this process of becoming highly educated and skilled in complex techniques, let us never lose the art of giving that basic personal care which from the patient's point of view constitutes nursing and means so much. (p7).

To authors such as Moore (1950); Broe (1961) and Thomson (1970) "care" is the main component of nursing, a point particularly evident in the journal articles which place increasing emphasis upon the "care" activities from the 1960's.

Over the years advances in science and technology have changed treatments and nursing. As medicine became increasingly complex and specialised the medical profession handed on to nurses many of the highly skilled and technical procedures and responsibilities that they formerly carried out. From the 1920's to the 1940's the technical "cure" activities overwhelmed the care activities to the extent that for some nurses they became the most important aspect of nursing practice. For a time nursing became procedure or test centered, not patient centered. In recent years however, nursing has once again become patient centered as nurses have learned to incorporate the caring with the curing and have recognised that the care activities are the main task of nurses. Nurses have learnt to use the new electronic equipment to augment their caring role not to supercede it.

Scientific research has given us the causes of many diseases and conditions. The nurses role in preventive medicine and health education activities has therefore increased particularly since the 1960's as the journal trends reveal. The decline of infectious fevers and

the increasing visibility of chronic or lifestyle diseases has also helped to emphasise the importance of the elements of the protection and teaching dimensions of nursing practice. Peak (1962) suggests that where preventive nursing practices originally concentrated:

> on sanitary and preventive measures with health education as its keystone for action, it has broadened out and become a comprehensive term that embraces all aspects of health, curative as well as restorative and rehabilitive. (p25).

The widening of the health and social fields in the second half of the century brought other personnel into the health team and caused nurses to redefine nursing and its functions. The wider scope of nursing has according to Orbell (1960) taken "nursing back into the homes and occupations of people" (p6) and resulted in nurses working in close co-ordination with a wide variety of other personnel both in and outside the hospital. Because the nurse is the one person in contact with the patient 24 hours a day, co-ordination of patient care has become a major nursing responsibility.

Over the years according to journal articles the importance of caring for the "whole" person has become increasingly emphasised and nurses have become more skilled in interpersonal relations, and more considerate of the personal needs of a patient. Cameron (1963) believes that the art of listening and having compassion for the patient is one of the hallmarks of the nursing profession. Other authors consider nursing to be an interaction process between nurse and patient.

Thus the historical trends derived from the journal articles reveal that over the years the six dimensions of nursing practice have remained constant although their associated elements may have changed. There does however

appear to be a core of nursing practice which may have been present from the early 1900's to the present day. This core is identified and discussed in Chapter 10 (p249)

CHAPTER SIX

NURSING EDUCATION, ITS DIMENSIONS AND ELEMENTS: A HISTORICAL ANALYSIS OF THE NEW ZEALAND NURSING JOURNAL 1908-1981

In this chapter educational material derived from the journals is presented. The emphasis is on the specific knowledge, attitudes and skills that are learned as the basis for practice. Over the years, there have been fluctuations in the emphasis placed upon each of these three dimensions of nursing education as nursing education has endeavoured to keep pace with changes in nursing practice.

> The purpose of education in nursing is to provide well qualified nurses to meet the demands of nursing service.
>
> (Orbell, 1962, p9).

In this thesis it is argued that the elements that comprise the content of a nursing curriculum must be the same elements that constitute nursing practice. More over, the same variables should affect their specific nature and amount at any one point in time (refer p40 of this study). The need for nursing education to support and enhance nursing practice is supported by Cameron (1957) who states:

> curriculum for basic nursing...must be planned to ensure that the educational programme keeps pace with the practical experience necessary to produce a well prepared nurse.
>
> (p149).

CURRICULUM CONTENT

The New Zealand nurse training programmes at the beginning of this century were modelled on the Nightingale system. Fogarty (1973) tells how a Nightingale trained nurse, Mrs Grace Neill, drew up the first nursing syllabus of training. Nursing content was organised around three main focal points.

(1) A body of technical skills and procedures;
(2) rules and precepts related to hygiene and sanitation and
(3) a philosophy of nursing and a code of ethics.

There was little change by 1930. An unsigned journal article (1930) reports a discussion held at the Nurses' Conference that year about the nursing syllabus. The curriculum this article states consists of anatomy and physiology; medicine and surgery lectures; cooking and dietetics; practical procedures (including nursing handicrafts) and nursing ethics. A study of early examination papers and their analysis which are an important part of all the early journals also verifies these points. The six dimensions of nursing have been used to organise the material contained in this chapter.

THE CARE DIMENSION

Consideration of the syllabus in the early journals (in the published examination papers and the discussion of curriculum content) shows that the basic handicrafts of nursing are considered an important part of the nursing education syllabus to enable the nurse to "care" for the patient. By the 1920's , however, the fact that there is some concern about the nurses' ability to practice the basic handicrafts of nursing effectively is revealed by J.A.M. (1928). An unsigned article (1927) also emphasises this point and suggests that the added stress placed

upon the technical duties means that:

> the less technical duties are found of less interest and often hurried over or quite forgotten...We fear that nurses have no time to carry out duties which make all the difference to the comfort of the patients...(therefore) systematic teaching of probationer nurses is needed...and the supervising of young nurses in all the various processes of caring for patients...by sister tutors. (p3).

McLean comments in 1921 on the first appointment of sister tutors whose function was to:

> give demonstrations on correct nursing procedures...and to assist the Matron in her course of lectures. (p161).

The appointment of sister tutors spread in the 1920's and 1930's as did the concept of the Preliminary course which is discussed in a journal article by an unnamed author (1928). The author states that one of the main ideas of this course at Dunedin Hospital is to enable students to learn the practical handicrafts of nursing prior to entering the clinical setting. Thus the elements associated with the care dimension of nursing practice are obviously considered an important part of nursing education programmes. Another unsigned article (1930) reports that a discussion about the nurses "care" versus "cure" activities took place at the 1930 Trained Nurses' Conference.

The need for a nurse to "be taught the study of her patient as an individual" (p244) is emphasised by a New Zealand Health Department Report (1934) which stresses the difference between a nurse's training and a medical student's training. Taylor (1938) is another early advocate of the need for the nurse to care for the whole person. She felt that nurse programmes must incorporate psychology and sociology into their syllabus. Graham (1936); Russell

(1940), and Goodwin (1943) also stress the importance of nurses being taught psychology. Taylor (1938) emphasises her argument by stating:

> We must look now to the liberal arts and to the sciences for sound and safe principles upon which to build the whole education programme for the practice of nursing. (p.39).

Consideration of the suggested curriculum content is included in the Report of the Committee on Education of the International Council of Nurses (1931). This is documented in a 1931 journal and reveals the importance placed upon general nursing care of sick people and the need to understand and manage sick people, (refer Appendix E). In 1938 a revision of the nursing syllabus included the knowledge of "elementary nursing" in the preliminary examination together with anatomy and physiology; bacteriology and hygiene. Therefore the elements associated with "elementary nursing" (care activities) are seen as essential nursing content for nurses from the beginning of their training. Lambie (1938) suggests that although the function of the nurse has enlarged due to changes in society the objectives of nursing education and the essential elements of nursing practice as stated by Nightingale have remained unchanged over the years.

The debate about the care versus the cure activities continued in the journals. In an unsigned editorial (1942) the need for nurse tutors, not doctors, to teach nursing procedures and the "care" of the patient is emphasised. In another unsigned editorial (1945) the arts of elementary nursing taught in the first year of the curriculum are described as the "necessary foundation for nursing procedures to be carried out in the wards" (p.180). This editorial concludes with the comment:

> It is upon the patient that the whole programme should be centered, and the test of whether or not the curriculum is satisfactory lies

> in the quality of the personal care which every individual receives. (p.181).

Although psychology is not included in the syllabus the need to understand the psychological aspects of illness is stressed if the nurses are:

> to give their patients complete nursing care; a nursing care...which is concerned with the patient as a whole and as a personality. (unsigned article 1945, p.181).

Lambie (1953) also considered that there is an urgent need to include the study of psychology in the education programme because:

> more and more we are learning how our mental make-up effects our physical well-being (p.173).

Furthermore Lambie states the concept of health has been broadened by the acceptance of the new World Health Organisation definition to include "complete physical, mental and social well-being" (p.167). The call for nurses to be taught how to meet the physical and the psychological needs of patients is increasing.

In the 1957 curriculum revision the inclusion in the curriculum of twelve hours of psychology and an obstetric component stresses the importance of nursing the whole person. The new components of psychology Chambers (1956) states will result in better bedside care for:

> the patient will be cared for in the practical side as well as from the psychological point of view. (p.107).

The need for the inclusion of psychology in the curriculum is supported in the World Health Organisation Report on Nurses and their education (1956) which states that "more emphasis on mental and emotional health is needed" (p.232) to enable nursing education to keep pace with advances in nursing practice.

Orbell (1960) suggests that the fact that nurses are constantly stressing the importance of the patient and his care and the need to educate nurses to achieve this aim may be because nurses are not carrying out this role at present. Broe (1961) supports this argument when she says that the new staff nurses today need most help with the "simple basic nursing procedures" (p.22). Nurses she believes must be educated to "care" for their patients, Broe (1961) believes that there is a need to replan nursing education to emphasise this. Like Sister Mary Therese and Sister Mary Anne she advocates the use of Henderson's definition of nursing from which the basic needs of an individual are derived (refer Chapter 7, p. 86).

> Behind all techniques and arts of nursing procedures are certain fundamental principles which it is essential for all nurses to know and understand.
>
> (Sister Mary Therese and)
> (Sister Mary Anne 1966, p29).

Throughout the 1960's the need to care for the person as a "whole" and to meet their individual needs is stressed along with the importance of providing a broader based educational programme to enable nurses to achieve this aim. Thompson (1968); Salmon (1968); Burton (1976); Carpenter (1971); de Montford (1972) and Parkinson (1978) are some authors to support this view. The 1966 curriculum revision while going some way to meet these demands did not satisfy nurses and in 1973 the first technical institute nursing courses commenced.

These courses Thomson (1975) suggests "embody the major themes of desired change voiced through the 1960's" (p22). Many nurses argue that these courses provide nursing with a broader base from which to develop the knowledge of the care dimension. Thomson (1975) cites the other values of these programmes as student status, integration of theory and practice and a programme not designed to

concentrate on hospital nursing to the detriment of other types of nursing. An article by Christenson (1976) suggests that these programmes have met these needs.

Paralleling the development in Technical Institute nursing programmes and the advent of patient-centered care is a similar development occurring in hospital school programmes with the introduction of the latest curriculum guidelines in 1977 (see Appendix G). Although these guidelines continue to emphasise hospital nursing the number of hours spent studying and working in the community has been increased and the curriculum content has been broadened further to incorporate a variety of physical and biological sciences, behavioural and social studies.

Nursing studies constitute the other half of the programme in order to provide students with opportunities to develop the necessary knowledge, attitudes and skills to enable them to provide effective patient care.

To sum up, it is evident that although nurse education programmes have, over the years, continued to teach the elements associated with the care dimension, these elements were displaced in importance by those associated with the cure dimension from the 1920's to the late 1950's. From the 1957 curriculum revision the emphasis upon the elements comprising the care dimension have increased as a more humanistic patient-centered nursing curricula has evolved.

THE CURE DIMENSION

Like the elements in the care dimension, the elements associated with the cure dimension have been included in the nurse training programmes from 1901, as a study of references in early journals reveals.

> As the treatment of the sick advanced, becoming more specialised the nurse moved along with it, and she needed preparation in such subjects as related to her work so that she could understand something of the body committed to her care and of the main diseases that might attack it to allow her to take an intelligent interest in the line of treatment carried out and in her observations.
> (Wood 1918, p205)

In the 1920's the importance of the elements associated with the cure dimension increase and begin to overwhelm the other dimensions of the nurse's role. An unsigned editorial in 1917 (p127) states that due to specialisation in medicine which resulted in specialisation in nursing "the good all round nurses, scarcely no longer exist".

As the number of technical procedures increase authors stress the need to differentiate between nursing and medicine. An unsigned article (1921) quotes an extract by Nutting and Dock to emphasise the point.

> Medicine and nursing have always been most intimately allied and at first one and the same. As time went on the two special branches of the art diverged - the medicine giver and the care taker. (p81).

A New Zealand Health Department Report (1934) states:

> In New Zealand it is apparent that too much emphasis has been placed on medical teaching rather than teaching given by nurses. The teaching of nursing is entirely different from the teaching of medical students, as the nurse must from the very beginning be taught the study of her patient as an individual rather than a scientific case. It is true that she must have sufficient knowledge to understand diseases and its conditions, but a great deal more attention in regard to the actual nursing procedures and to the humanitarian aspect of her work is necessary. (p244).

Meanwhile the influence of the cure dimension and its associated elements together with the medical orientation continue to increase (refer p 96).

Although the curriculum suggested by the International Council of Nurses (1931) continues to stress the importance of elements associated with the other dimensions of nursing practice, a study of the suggested curriculum content reflects the influence of bacteriology, chemistry, materia medica, therapeutic treatments and elements of pathology. In 1932, eight hours of microbiology (bacteriology),were included in the basic education programme. This component included content on asepsis, antiseptics and the prevention of cross infection. Six hours of history of nursing as well as orthopaedic lectures were also advocated.

In 1938 a further revision of the syllabus occurred. The nutrition and dietary components of the syllabus were extended. Anatomy and physiology were included as subjects in the preliminary examination together with elementary nursing, bacteriology and hygiene. Thus some emphasis upon prevention of disease does occur with this curriculum revision. In 1942 additional hours in the nutrition and dietary component were incorporated into the programme.

Luxton (1946) believes that the emphasis upon asepsis and antiseptics took such a hold that "things" became more highly regarded than "people". In his article he quotes one of his friends as saying:

> that in one of his wards every detail was spick and span. The floor shone like glass, beds and lockers were tidy - even the door knobs were oiled and burnished...There was not a speck of dust in the ward, but there was grit in the relationships...I wonder what the patients felt like? (p.114).

An unsigned editorial (1942) recommends the inclusion of first aid lectures for nurses because the war has placed:

> increasing demands upon the technical skills of nurses and their ability to deal with ever-recurring emergencies...(Nurses) must be prepared to undertake the immediate care of injured persons - to give first aid as well as nursing care. (p.67).

Bridges (1947) suggests that the increasing knowledge in medical, surgical and preventive fields, together with "the associated complexity of nursing and nursing procedures" (p.7) has led to the situation where the amount of theoretical knowledge needed by a nurse necessitates more study. Brookes (1948) advocates that the demand for more medical knowledge by nurses should be met by teaching students "principles of a problem" rather than a knowledge of detail.

E.B. (1939) reinforces earlier statements relating to the expansion of technical skills by stating that "routine leaves no time for nurses to be with patients" (p.20). In 1946 a further curriculum revision (see Appendix G. for curriculum guidelines) tried to keep pace with changing needs.

> The ever-widening field of medical science results in greater responsibilities being placed on the nursing profession. Nurses today are called upon to perform an infinitely greater variety of duties than were the nurses of a generation ago, consequently the knowledge gained during the basic training must be correspondingly more comprehensive.
> (Unsigned editorial, 1945, p.179).

The 1946 curriculum revision besides introducing lectures in the social and preventive aspects of nursing, updates and re-organises other content. Subjects such as bacteriology, hygiene, dietetics, anatomy and physiology are

given more emphasis and the curriculum includes a more detailed guide of elementary nursing and nursing techniques to cover all the procedures required by nurses to that date. When the guidelines (see Appendix G) are compared with the list of technical duties suggested by the International Council of Nurses (1931) a much more extensive list is noted. So the increasing importance of the "cure" elements of nursing practice are reflected in nursing education.

> With the increasing amount of subject matter within reach of nurses, and the tendency of many to feel that greater interest comes from the theoretical side, it is increasingly important to keep a proportionate emphasis for all aspects of nursing training. It is upon the patient that the whole programme should be centered, and the test of whether or not the curriculum is satisfactory lies in the quality of the personal care which every individual receives.
> (Unsigned editorial, 1945, p.181).

In this curriculum, nursing of infants and children was given special emphasis, thus increasing the amount of medical knowledge needed by nurses. Although some attempt was made to provide a more humanistic approach with the introduction of social and preventive aspects of nursing this curriculum was pathology or disease-orientated. The result, according to journal articles, tended to be a functional fragmented type of nursing care, oriented more towards technical "cure" activities.

Brown (1956) commenting on the need to revise the syllabus comments that:

> Science and medicine has progressed very rapidly lately, and nurses have been called upon to do really advanced nursing techniques, so much so that we are perhaps entering into a scientific nursing field above what we are giving them at their basic training. We are not giving these nurses enough theory,

> the knowledge and the teaching they require to keep them apace of what we are expecting of them as practical nurses. (p.107).

Cameron (1956) believes that the re-organisation of content in the 1956 curriculum revision will enable knowledge to be related which will help the nurse to provide better "total" patient care. She advocates that only "the basic fundamentals of nursing should be given" (p.114). Thus evidence of the beginning of the resurgence of the elements associated with the "care" dimension of nursing practice is evident in this revision, together with the increasing importance of the protection dimension. This fact is supported by Turbott (1957) who states that

> nurses can no longer be trained for (curative medicine) alone. (p.107).

Chambers (1959) suggests that the emphasis placed upon nursing the ill in hospitals during nursing training leads nurses to believe that the hospital is the nurses' "greatest opportunity in nursing" (p.77). Fieldhouse (1959) offers a similar view point and also states that:

> in such a situation nursing becomes to the student first and foremost a matter of procedures and diseases...a business of how you bathe bodies, of how you give a variety of injections, of how you nurse "cardiacs" and manage epileptics (not people)....In such circumstances she cannot but form a procedure-ridden and disease-centered concept of nursing in which the patient is nothing more than the scene of operations!
>
> (p.p.101-102).

Journal articles by Broe (1961); Thompson (1968) and Salmon (1968) on nursing education in the 1960's advocate the teaching of nursing using a more broadly based curriculum and this theme continues into the 1970's. The need to teach nursing techniques using fundamental principles

is also advocated by Broe (1966) and Sister Mary Therese and Sister Mary Anne (1964). By using this method of teaching nurses about the cure elements, it was felt that time was not wasted in irrelevant detail as teaching by principles would enable nursing techniques and medical treatments to be applied to any disease or situation.

The move towards the decline in the importance placed upon the curative aspects in nursing education was slow to gain impetus. In 1968, Thompson (1968) suggests that the nurse:

> is performing highly technical activities rather than bedside care.... Some of her duties have been delegated to other personnel. (p19).

Powell (1961) reminds nurse educators that student nurses must also be taught skills in human relationships, communication and management, together with technical skills if they are to provide skilled nursing care to all people. A point of view supported by Salmon (1968). In spite of a further curriculum revision in 1966 which broadened the curriculum content and provided a more humanistic framework for nursing education, according to Carpenter (1970) the nursing curriculum remained "very limited... (and) the nurse training system (did) not keep pace with changes in the health field". (p5).

Thomson (1975) suggests that nurses must change their method of nursing education to nursing in the "health" model instead of nursing in the "medical" model (refer table 6.1). To do this curriculum content must move from a main focus on medical pathology and nursing techniques. The move towards technical institute courses she believes assisted this change in orientation.

TABLE 6.1: A COMPARISON OF MEDICAL AND HEALTH MODELS IN NURSING EDUCATION

Nursing Education in the Medical Model.	Nursing Education in the Health Model
Short education	Mixed education content according to the variety of nursing functions
Service based	Education based
Centred on medical pathology and nusing techniques	Centred on nursing functions

Adapted from table by Thomson (1975)

The 1977 syllabus revision further developed the emphasis placed on health rather than illness. This revision which had begun in 1957 and continued in 1966 assisted nurses to incorporate the "cure" elements into the nurses role along with the "care" elements and elements of the other dimensions of nursing practice. Parkinson (1978) advocates that nursing is concerned with each of the three dimensions of nursing education and not just the psychomotor skills. Only if the content of educational programmes is based on all three dimensions can nurses learn to provide nursing care that meets the needs of each individual person. In such an education programme the cure elements do not predominate.

To sum up, over the years up until the middle of this century journal articles provide evidence to suggest that great importance was attached by nurses to the "cure" dimension and its associated elements. However from the 1956 curriculum revision with its increase and re-organisation of content and the inclusion of new content, a gradual resurgence in the importance of the elements associated with the care , protection, co-ordination and teaching dimensions is evident, together with the recognition of the importance of the patient advocacy dimension.

THE PROTECTION DIMENSION.

The inclusion of curriculum content relating to the rules and precepts of hygiene and sanitation from the beginning of the century provides evidence of the existence of elements of the protection dimension in nursing curricula.

However, over the years, journal articles show an increasing concern in relation to the number of nurses employed in the preventive nursing fields with no proper training in the protection and teaching dimensions of nursing. Taylor (1924) suggests that:

> the content of nursing education should be based on the health needs of the community, nursing procedures and theory in different but related fields.... Is it right that the general trained nurse has no proper preparation in this (preventive nursing) area? (p.111).

In an unsigned article (1934) the question was again asked if it was right not to include "public health" in the basic course of training? For:

> it is now recognised that the science and art of medicine is not restricted to the diagnosis and cure of disease in its gross forms; it includes also a knowledge of how disease... can be prevented. (p.113).

The author goes on to argue for the inclusion of public health in the basic training because it is "the first line of defence" against disease (p.114). Taylor (1938) states that the area of health conservation is of fundamental importance for nurses. Yet curriculum content was to remain basically orientated to the hospital cure activities for many years.

In the 1938 syllabus revision, increasing importance is attached to the importance of hygiene and asepsis in nursing, as one method of protecting patients from disease

in hospitals. No mention is to be found relating to the inclusion of content about public health, even though the International Council of Nurses suggested curriculum content on "keeping people well" (p88).

Judging by journal articles, discontent about the syllabus content continued with nurses such as Taylor (1938), Lambie (1939) and E.B. (1939) advocating the inclusion of preventive aspects of nursing into the curriculum. Denman (1951) recommends the value of allowing student nurses in their final year to have a day out with the health visitor or an industrial nurse or some other area of preventive work.

The curriculum revision in 1947, according to Cameron (1956):

> endeavoured to encourage the emphasis on health promotion and disease prevention. (p.111)

Thus some recognition was given in this syllabus to the importance of the protection elements of nursing practice (refer syllabus Appendix G)even if the curriculum maintained its cure activities orientation. This move paralleled overseas trends. In an article by Bridges (1954) she suggests that nurses must always be aware that they have obligations in preventive work. Cameron (1954) reporting on a study week held in 1952 to discuss trends in nursing education states that it was:

> resolved that greater emphasis must be placed on the preventive aspect of nursing and that hospital schools of nursing were to aim for a better integration of the health and social aspects of disease. (p132).

In the 1956 curriculum revision Cameron (1956) advocated that the inclusion of obstetrics in the basic curriculum would emphasise health prevention and disease prevention. A view shared with Brown (1956). The inclusion of more theory and practice relating to public health nursing

she believed would also strengthen this idea and help the nurse to realise the importance of such activities. Thus the new curriculum emphasised the elements of the protection dimension of nursing practice.

Chambers (1959) commenting on the value of the inclusion of the preventive aspects in the nursing training says that it helps the student not to lose sight:

> of the importance of prevention of illness while caring for those that are ill. (p77).

The move towards greater emphasis in our curriculum upon the prevention and health aspects of nursing was in agreement with the World Health Organisation's (1956) point of view according to Cameron (1957) who states that "all nursing should be taught with a preventive bias" (p151). Davis (1961) explains in two articles how the public health field work can be incorporated and correlated with the theory given in the Nursing School. She includes aspects such as safety and accident prevention, personal and community health trends and responsibilities and the prevention and control of communicable diseases.

Throughout the 1960's authors such as Broe (1961), Salmon (1968) and Thompson (1968) stress the importance of the need to educate nurses in aspects of health promotion and disease prevention in order to meet the needs of individuals. Powell (1961) believes that a broad foundation of knowledge and understanding enables nurses to realise the importance of the elements associated with the protection dimension in the provision of preventive nursing care.

Several authors also talk of the need for students to be educated about the importance of safety. Hastings (1972) believes that the safety aspect must be integrated throughout the whole programme and linked to the needs of every individual.

In support of this argument she quotes Virginia Henderson's (1969) pinciple that the nurse must:

> ...help the patient avoid dangers in the environment, and protect others from any potential dangers from the patients such as infection and violence. (p37).

In summary therefore it is noted that although some elements of the protection dimension can be traced from the beginning of the century, increasing importance has been placed upon these elements from 1957 onwards. Over the years a change in the direction of the protection elements is noted. The emphasis placed upon the basic hygiene and sanitation methods stressed early in the century are superceeded by the need for safety and accident prevention in the later years of this study.

THE TEACHING DIMENSION

One of the earliest references to the educational importance of the elements associated with this dimension of nursing practice is found in an unsigned article (1934) which emphasises the need to teach nurses health promotion activities of which health teaching is one aspect. The recognition of the importance of health teaching as a component of the nursing curriculum is evident in its inclusion in the suggested curriculum of the International Council of Nurses (1931). Taylor (1939) also comments upon the value of health education being incorporated into the basic nurse training, particularly if a nurse is being prepared for community service.

The fact that nurses must be educated to undertake health education is recognised by Lambie (1950) who suggests that not every nurse is a natural teacher. With the increase in preventive services MacKintosh (1954) believes it should:

> follow that 'education in health' should be a part of the routine teaching for the basic nursing qualification. (p.48).

A point of view which is shared with the World Health Organisation Expert Committee on Nursing (1952). In this article (1952) which reports on the work of this Committee one of the four main aspects of a nurse's role that is listed is:

> Educational... health education of all with whom the nurse comes in contact. (p.p147-148).

This article goes on to elaborate the importance of adjusting this component of the curriculum to meet the student nurses' learning needs. Lambie (1953) suggests that nurses must be trained to teach student nurses who they supervise as well as patients for whom they care in whatever setting they are found.

> All nurses have a moral obligation to the community to teach the prevention of illness. Therefore it is suggested that the basic programmes of schools of nursing should be designed to prepare nurses for their educational functions and responsibilities.
> (World Health Organisation, 1955, p.35).

This Report also emphasises the value of community participation in health education programmes to arouse and sustain peoples interest.

The inclusion of a public health component in the 1956 curriculum revision Cameron (1956) suggests would allow the nurse to "be better able to fulfill her role as a teacher" (p.114). Turbott (1957); Powell (1961); Kerr (1961) and Broe (1957) also advocate the need to broaden the curriculum to enable this role to be effectively achieved, as nurses must participate in the teaching and promotion of health. Broe (1961) believes that health

teaching should be one of the components of a "Core Programme" developed for nurses. In 1966 amidst the backdrop of clamour for a broader base to the curriculum, another curriculum revision occurred and this time a small component on health education was included in the syllabus (refer Appendix G). Yet nurses such as Burton (1970) believed that if a nurse was:

> to comfort, support, observe, understand, teach, advise, analyse, direct, administer and plan (effectively), (p4).

she must be educated accordingly and provided with the relevant knowledge, attitudes and skills. Burton (1970) considered that the most appropriate place was an educational setting. During the 1970's journal articles by Hastings (1972), Selby (1973), Lythgoe (1979) and Englefield (1980) raise the issue of the need to educate student nurses to educate others. Hopkins (1981) stresses the need for nurses to be taught the importance of patient participation as part of health education components.

In summary, although traces of the elements of the teaching dimension are evident in the references to education in the first half of this century the increasing impetus placed upon the elements associated with this dimension of nursing practice is more apparent from the 1960's. From the 1966 curriculum revision a health education component is found and the amount of time allocated to this dimension has increased with each subsequent curriculum revision.

THE COORDINATION DIMENSION

As long as medicine was mainly cure oriented Balme (1928) believed that nurses could be trained simply as doctors' assistants, but once preventive aspects were included nurses must be trained to co-operate and assist doctors.

According to the International Council of Nurses' suggested curriculum (1931) a nurse should be educated to organise and manage the ward and to supervise other workers. The World Health Organisation Expert Committee on Nursing (1952) emphasises the importance of student nurses learning how to organise, plan and perform nursing activities as one of the health team caring for the patient. Nurses must be knowledgeable of their potential contribution in achieving the goals and objectives of the team according to this Report. Orbell (1953) suggests that trained nurses must have learnt how to organise patient care and supervise others in the provision of this care. Lambie (1953) advocates that besides her professional training a nurse needs "a maturity of mind" (p.170) to enable her to assume the co-ordinating role.

Cameron (1956), when commenting on the new curriculum revision with its greater emphasis upon the theoretical component of nursing, believes that this new method of training will introduce additional personnel to the ward team. The main value of these additional personnel she cites as allowing the most economical use to be made of the nurse, but these staff must be encouraged and co-ordinated by nursing staff if they are to become effective members of the overall team. Turbott (1957) supports this viewpoint. He believes that in order to effectively carry out this nursing function the educational needs of the student must be placed upon a much wider base. In an article in the same year Cameron (1957) discusses the idea of the short course in ward administration which was incorporated into the 1956 curriculum.

Broe (1959) points out that the broader based and more comprehensive programmes assist nurses to carry out additional administrative and co-ordinating functions. For as Orbell (1960) states only with "adequate preparation and knowledge" can nurses carry out these responsibilities.

> But in this process of becoming highly educated, and skilled in complex techniques, and in administration and teaching, let us never lose the art of giving that basic personal care which from the patients point of view constitutes nursing and means so much.
> (Orbell, 1960, p7).

Powell (1961); Broe (1961); Peak (1962); Thompson (1968); Kennedy (1971); Boyd (1973); Robb (1974) and Horne (1979) all emphasise the importance of educating student nurses in elements associated with the co-ordination dimension. Thompson (1968) states that because the nurse is an administrator, co-ordinator, planner and teacher:

> techniques of administration, of supervision and management need to be learned. (p7).

It is evident that in the first half of this century until the inclusion of a ward administration course in the 1956 curriculum revision, few references are found relating to the need to teach student nurses elements associated with this dimension of nursing practice.From this time on the importance of the elements of this dimension being incorporated in the student nurses education programme has been increasingly recognised.

THE PATIENT ADVOCACY DIMENSION

One of the earliest references to the need to educate nurses in the elements of the patient advocacy dimension of nursing practice is made by MacEachern (1926). He states that the importance of the nurses' every watchful eye on the patient and nursings intimate relation to the patient:

> is a strong argument for a higher standard of education for nurses. (p66).

He believes that nurses should take a preliminary course in psychology and training in observation skills to assist them to carry out this role. Taylor (1938) likewise advocates a fundamental knowledge of sciences upon which the ability to form close relationships and understand human behaviour are based.

> The true spirit of nursing cannot be cultivated without an understanding on the part of the nurse...for the patients welfare constitutes the whole of nursing... (p.60).

The need to understand sick people and to get their point of view, and adjust nursing care appropriately also features as one of the duties which a nurse must be educated to carry out in the suggested curriculum of the International Council of Nurses (1931). Carter (1946) suggests that the nurse is intimately in touch with the patient and she advocates that students have "more personal care of patients in the initial stages of their training", (p.318). Corkill (1946) offers a similar viewpoint, as she believes that student nurses throughout their training should be taught about some of the problems that people face and so:

> be enabled to show a deeper understanding, patience and sympathy with those who need it so sorely. (p.55).

Martin (1952) advocates that with the present educational advances, the science must not overshadow the art. It is important that "each patient (is given) the feeling that his welfare is your first consideration" (p.69).

Lambie (1953) emphasises the importance of psychology, sociology and social case methods if nurses are to be better prepared to advise the family effectively. When commenting on the new curriculum revision in 1956 Cameron states

that the re-organisation of the programme and the inclusion of psychology and more public health will enable the nurse to be more knowledgeable and allow her to assume responsibility for total patient care as:

> she will know more about human relationships, family life (and) community life. (p.114).

The World Health Organisation(1956)also suggests that more emphasis in the nursing curriculum must be placed on interpersonal relationships with patients (p.233). Turbott (1957) believes that nurses require background subjects such as psychology; sociology; mental hygiene and human relations to be integrated throughout the entire curriculum. Incorporation of such subjects, Broe (1959) states would enable nurses to see patients as people and help them to meet their needs more effectively.

Beaumont-Orr (1960) advocates that nurses must be prepared to assist worried patients and worried relatives. According to Kerr (1961) and Peak (1961) the importance of nurses learning communication skills to enable them to express themselves accurately, clearly and effectively should be emphasised. Broe (1961);Powell (1961)and Peake (1962) are other authors to stress the fact that skills in human relationships and communication must be taught to students along with the technical skills.

Thompson (1968) and Salmon (1968) are others to put forward this point of view which is also expressed in the 1970's by McKay (1978); Stote-Blady (1978); Consedine (1980); Horne (1979) and Downy (1980). These authors see the inclusion of a curriculum component on interpersonal skills as essential to achieve more effective nurse-patient relationships.

> While it is undoubtedly important for the nurses to be clinically competent and to have at least some managerial skills, at the hub of good nursing is the development of good interpersonal skills.
> (Consedine, 1980, p14).

Consedine (1980) suggests that we are inclined to pay only lip service to this aspect of a nurses training and must get "down to the hard work of training nurses in this area", (p35).

Thus there is evidence especially since the 1956 curriculum revision to enable the importance placed upon the elements of this dimension to be ascertained. The increase in the number of personnel in the health team together with advances in medical science and technology are cited as one of the main reasons for the increasing emphasis placed upon the elements associated with this dimension in nursing education programmes.

SUMMARY

From the educational material derived from the journal articles it is apparent that over the years the emphasis placed upon the dimensions of nursing education has fluctuated as nursing education has endeavoured to keep pace with nursing practice.

As medical knowledge increased and medicine became more complex and specialised the importance of nurses developing skill and knowledge in the provision of highly technical procedures increased. The early curriculum revisions of 1932; 1938; and 1946 (refer Appendix G.) emphasise this trend and an examination of their content reveals the importance of the "cure" activities in nursing.

Nursing at this time had a procedure or disease orientation.

The education material like that relating to nursing practice shows evidence of the care/cure dichotomy. Although evidence of the care activities in the education programme is evident from the beginning of modern nurse training it is not until the 1957 curriculum revision that a resurgence of their importance in relation to the cure activities begins. This importance is stressed more in each subsequent curriculum revision. In 1966 a humanistic orientation is evident in the curriculum revision and in 1977 an even more wholistic patient centered approach occurs (refer Appendix G).

The 1957 curriculum revision besides beginning to re-emphasise the care aspects of nursing practice served to place nursing education on a broader foundation. Nursing care became concerned with nursing the well and the sick as the public health component in the programme was increased. This component was to be enlarged as each following curriculum revision placed more emphasis upon the prevention aspects of nursing practice and it was to form the basis for the introduction of the health education component introduced in the 1966 revision. Trends in journal articles clearly show the increasing importance placed upon these two activities of nursing practice. Cameron (1963) states that the inclusion of teaching relating to nursing the well as well as the sick emphasised the importance of the health promotion and illness prevention activities.

The inclusion of psychology and obstetrics in the 1957 curriculum revision also emphasised the importance of the whole person. An emphasis that was to become even more intensive in later curriculum revisions with the gradual addition of more of the social science and

humanities subjects. The increase in importance placed in the education programme on interpersonal and administrative skills served to better prepare nurses for the activities associated with the patient advocacy and co-ordination roles. Thus with each curriculum revision the early training of nurses in a disease or procedure centered approach declined as nursing education moved towards the more interactional patient-centered approach of the 1970's.

In 1963 Cameron asked the question:

> are we going to plan our curriculum for nurses for the future so that they can develop skills in identifying the problems of patients, in selecting the appropriate nursing treatments to meet problems on a patient basis, and in applying principles of nursing care in practice? (p.14).

Subsequent curriculum revisions have answered this question as nurses have increasingly used its accumulating store of professional knowledge to provide a foundation for nursing practice in contrast to the earlier nursing practice based on medical knowledge. The redefining of nursing and its activities, Cameron believes have helped to establish "care" as the main nursing activity. The growing emphasis on a broader education for nurses Thompson (1968) believes prepares nurses for an increasingly wider variety of positions both within and outside the hospital.

CHAPTER SEVEN

READINESS FOR PRACTICE: AN ANALYSIS OF SURGICAL STATE EXAMINATION PAPERS 1903-1981

In this chapter, a trend analysis of the data elicited from the five yearly sample of surgical State Examination papers (1903 to 1981) is presented and discussed. The results of the trend analysis are examined in the light of material derived from the New Zealand Nursing Journal, from 1908 to 1981.

Table 7.1 shows the percentage distribution of theme counts in each of the 36 categories defined in Appendix D. Thirty two of these categories represent elements related to the six dimensions of nursing practice and each is considered in the 17 time periods (1903-1981).

DISTRIBUTION OF CATEGORIES

Although all 32 categories were developed prior to the analysis, the actual number of categories required for theme counts in 1903 was only 13, rising to the 35 required in 1981. The greatest single increase occurred in 1961 when the number rose from 15 used to classify themes in 1956 to 31 in 1961 (refer Figure 7.1).

A major factor contributing to this increase in the use of categories is undoubtedly the change of format in the examination papers that accompanied the 1957 curriculum revision (refer Appendix G). The change in format was seen as so important that sample examination questions using the new format were included in the 1957 curriculum syllabus. In Appendix H the differences in language, and layout can be seen in sharp contrast.

TABLE 7.1: PERCENTAGE (AND ACTUAL) DISTRIBUTION OF THEME COUNTS PER TIME PERIOD
(The Actual number of theme counts in each category is given in parenthesis)

CARE DIMENSION CATEGORIES.

Category of Patient Care	1903 T1 %	1908 T2 %	1911 T3 %	1915/16 T4 %	1921 T5 %	1925/26 T6 %	1931 T7 %	1936 T8 %	1941 T9 %	1946 T10 %	1951 T11 %	1956 T12 %	1961 T13 %	1966 T14 %	1971 T15 %	1976/77 T16 %	1981 T17 %	% Change Over 1 year
General Nursing Care	7.14 (4)	8.82 (6)		3.03 (3)	2.91 (3)	11.83 (11)	9.41 (8)	13.11 (8)	7.67 (7)	7.32 (6)	2.38 (2)	13.68 (13)	3.93 (27)	3.79 (18)	3.30 (18)	3.69 (25)	1.06 (35)	- 6.08
Physical Care		1.47 (1)		2.02 (2)					1.10 (1)				0.14 (1)	1.68 (8)	0.92 (5)	2.07 (14)	2.01 (66)	+ 0.54
Pain			4.03 (5)		5.83 (6)								0.29 (2)	0.63 (3)	0.73 (4)	0.30 (2)	0.94 (31)	- 3.09
Sleep																	0.30 (10)	-
Psycho-social Care													5.33 (38)	5.05 (24)	5.86 (32)	18.74 (95)	10.83 (356)	+ 5.52
Specific Patient	1.78 (1)	4.41 (3)	6.45 (8)	8.08 (8)	4.85 (5)	2.15 (2)	4.71 (4)	3.28 (2)	4.39 (4)	3.66 (3)	7.14 (6)	5.26 (5)	16.88 (116)	14.74 (70)	17.22 (94)	17.28 (117)	14.65 (482)	+12.87
Age of Patient		1.47 (1)					2.35 (2)						2.91 (20)	1.89 (9)	2.01 (11)	2.22 (15)	0.73 (24)	- 0.74
Abilities/ Disabil-ities														0.21 (1)		0.44 (3)	0.09 (3)	- 0.12
Total % Distribution	8.92	16.17	10.48	13.13	13.59	13.98	16.47	16.39	13.16	10.98	9.52	18.94	29.83	28.67	30.83	40.77	30.34	
Total Theme Counts	(5)	(11)	(13)	(13)	(14)	(13)	(14)	(10)	(12)	(9)	(8)	(18)	(204)	(233)	(164)	(271)	(1010)	

CURE DIMENSION CATEGORIES.

Observ./ Assess.			0.81 (1)		1.94 (2)				1.10 (1)		2.38 (2)		0.29 (2)	1.68 (0)		2.07 (14)	1.55 (51)	+ 0.79
Blood Pressure																	0.21 (71)	-
T.P.R.	1.78 (1)												0.29 (2)				1.31 (43)	- 0.47
Patients Progress			0.81 (1)	3.03 (3)	1.94 (2)	3.22 (3)		1.64 (1)	5.49 (5)	1.22 (1)	8.33 (7)	5.26 (5)	4.80 (33)	5.26 (25)	4.03 (22)	5.76 (39)	2.52 (83)	+ 1.71
Comp- lications	10.71 (6)	2.94 (2)		3.03 (3)	2.91 (3)	6.45 (6)	3.53 (3)	9.84 (6)	3.30 (3)	8.54 (7)	5.95 (5)	9.47 (9)	3.06 (21)	1.89 (9)	1.47 (8)	0.89 (0)	1.40 (45)	- 9.31
Funct. Status	26.78 (15)	20.58 (14)	16.93 (21)	34.34 (34)	22.33 (23)	36.56 (34)	25.88 (22)	44.26 (27)	26.37 (24)	20.73 (17)	33.33 (28)	30.53 (29)	16.88 (116)	26.95 (128)	17.40 (95)	12.41 (84)	14.42 (474)	-12.36
Medic- ations	17.86 (10)	13.24 (9)	4.03 (5)			1.07 (1)					1.19 (1)		3.06 (21)		2.38 (13)	1.03 (7)	5.84 (192)	-12.02
Diet			1.61 (2)										0.29 (2)		0.37 (2)	0.74 (5)	1.22 (40)	- 0.39
Patient Activity													0.73 (5)	0.21 (1)	1.10 (6)	0.30 (2)	0.97 (32)	+ 0.24
Weight																0.30 (2)	0.21 (7)	- 0.07
Intake/ Output					3.88 (4)				2.20 (2)				0.87 (6)	2.32 (11)	0.37 (2)	1.03 (7)	2.71 (89)	- 1.14
Treatments	21.43 (12)	11.76 (8)	32.26 (40)	12.12 (12)	12.62 (13)	9.68 (9)	23.52 (20)	11.47 (7)	10.99 (10)	23.17 (19)	17.86 (15)	5.26 (5)	4.66 (32)	4.00 (19)	2.75 (15)	2.51 (17)	4.26 (140)	-17.23
Specimens	1.78 (1)												0.80 (6)		0.18 (1)		0.46 (15)	- 1.32
Tests/ Procedures	5.36 (3)	19.12 (13)	8.06 (10)	7.07 (7)	21.36 (22)	20.43 (19)	23.52 (20)	4.92 (3)	15.38 (14)	18.29 (15)	13.10 (11)	15.79 (15)	6.98 (48)	9.26 (44)	6.59 (36)	4.28 (29)	6.57 (216)	- 1.21
Artificial Drainage Methods			2.42 (3)						1.10 (1)	1.22 (1)	1.19 (1)		0.14 (1)	0.05 (5)	3.30 (18)	2.51 (17)	2.19 (72)	- 0.25
Artifical Intake Methods		4.41 (3)	0.81 (11)	15.15 (5)	6.80 (7)			6.56 (4)	2.20 (2)	2.44 (2)		1.05 (1)	0.87 (6)	4.00 (19)	0.73 (4)	2.51 (17)	1.86 (61)	- 2.55
Total % Distribution Total Theme Counts	85.7 (48)	72.5 (49)	67.74 (84)	74.74 (64)	73.78 (73)	77.41 (72)	76.45 (65)	78.69 (48)	68.13 (62)	75.61 (62)	83.33 (70)	67.36 (57)	43.3 (297)	56.62 (269)	40.67 (224)	36.78 (246)	47.7 (1535)	

Table 7:1 (cont'd)

	Category of Patient Care	1903 T1 %	1908 T2 %	1911 T3 %	1915/16 T4 %	1921 T5 %	1925/26 T6 %	1931 T7 %	1936 T8 %	1941 T9 %	1946 T10 %	1951 T11 %	1956 T12 %	1961 T13 %	1966 T14 %	1971 T15 %	1976/77 T16 %	1981 T17 %	% Change Over 1 year
PROTECTION DIMENSION CATEGORIES	Prof. Respons.			16.13 (20)				2.35 (21)			2.44 (2)			1.89 (13)	4.21 (20)	1.64 (9)	1.62 (11)	6.66 (220)	- 9.44
	Precaut.				4.04 (4)	0.97 (1)	2.15 (2)			3.30 (3)			5.26 (5)	1.46 (10)	1.68 (8)	1.64 (9)	0.15 (1)	3.28 (108)	- 0.76
	Total % Distribution Total Theme Counts			16.13 (21)	4.04 (4)	0.97 (1)	2.15 (2)	2.35 (2)		3.30 (3)	2.44 (2)		5.26 (5)	3.95 (23)	5.89 (28)	3.28 (18)	3.26 (12)	9.94 (328)	
PARTICIPATION DIMENSION CATEGORIES	Patient Partic.													0.29 (2)	0.42 (2)	1.09 (6)	1.33 (9)	0.46 (15)	+ 0.17
	Health Educ.			0.81 (1)			1.07 (1)			4.39 (4)		1.19 (1)	2.11 (2)	4.65 (32)	3.58 (17)	9.70 (53)	3.84 (26)	2.16 (70)	+ 1.35
	Total Distribution Total Theme Counts			0.81 (1)			1.07 (1)			4.39 (4)		1.19 (1)	2.11 (2)	4.95 (34)	4 (19)	10.99 (59)	5.32 (35)	2.62 (85)	

CO-ORDINATION DIMENSION CATEGORIES.	Int.Team			3.81 (5)	3.03 (3)		1.07 (1)	1.18 (1)		2.20 (2)			5.66 (32)	1.47 (7)	2.74 (15)	4.87 (33)	3.84 (120)	-0.17
	Int.Nurses	5.36 (3)	11.76 (8)	0.81 (1)	45.15 (15)	11.65 (12)	4.30 (4)	3.53 (3)	4.97 (3)	8.79 (8)	10.97 (9)	5.95 (5)	6.32 (6)	12.80 (87)	3.37 (16)	11.72 (64)	10.49 (71)	4.01 (132)	-1.35
	Total % Distribution	5.36	11.76	4.62	18.18	11.65	5.37	4.71	4.97	10.99	10.97	5.95	6.32	18.46	4.84	14.46	15.36	7.65	
	Total Theme Counts	(3)	(8)	(6)	(18)	(12)	(5)	(4)	(3)	(10)	(9)	(5)	(6)	(119)	(23)	(79)	(104)	(252)	
PATIENT ADVOCACY DIMENSION CATEGORIES.	Pt. pref Interests																		
	N/Pt. Int.													0.73 (5)	0.63 (3)	0.73 (4)	1.62 (11)	1.49 (49)	-0.76
	Total % Distribution													0.73	0.63	0.73	1.62	1.49	
	Total Theme Counts													(5)	(3)	(4)	(11)	(49)	
AUDIENCE DIMENSION CATEGORIES.	32 Categ.	(56)	(68)	(124)	(99)	(103)	(93)	(85)	(61)	(91)	(82)	(84)	(95)	(687)	(475)	(546)	(677)	(3288)	
	A & P	(4)	(6)	(11)	(12)	(7)	(25)	(20)	(15)	(4)	(7)	(9)	(7)	(202)	(176)	(120)	(40)	(374)	
	Admin. Rel.																		
	Time		(1)	(6)	(4)	(2)	(1)	(3)		(1)	(6)	(4)	(8)	(43)	(28)	(35)	(50)	(154)	
	Location			(1)	(3)		(3)		(4)	(1)		(3)	(6)	(35)	(24)	(33)	(28)	(70)	
	Exam. Inst.	(16)	(19)	(36)	(29)	(26)	(32)	(30)	(25)	(25)	(25)	(30)	(26)	(302)	(191)	(187)	(123)	(391)	
	Total 36 Categories	(76)	(94)	(178)	(147)	(138)	(154)	(138)	(105)	(122)	(120)	(130)	(142)	(1269)	(894)	(921)	(918)	(4771)	

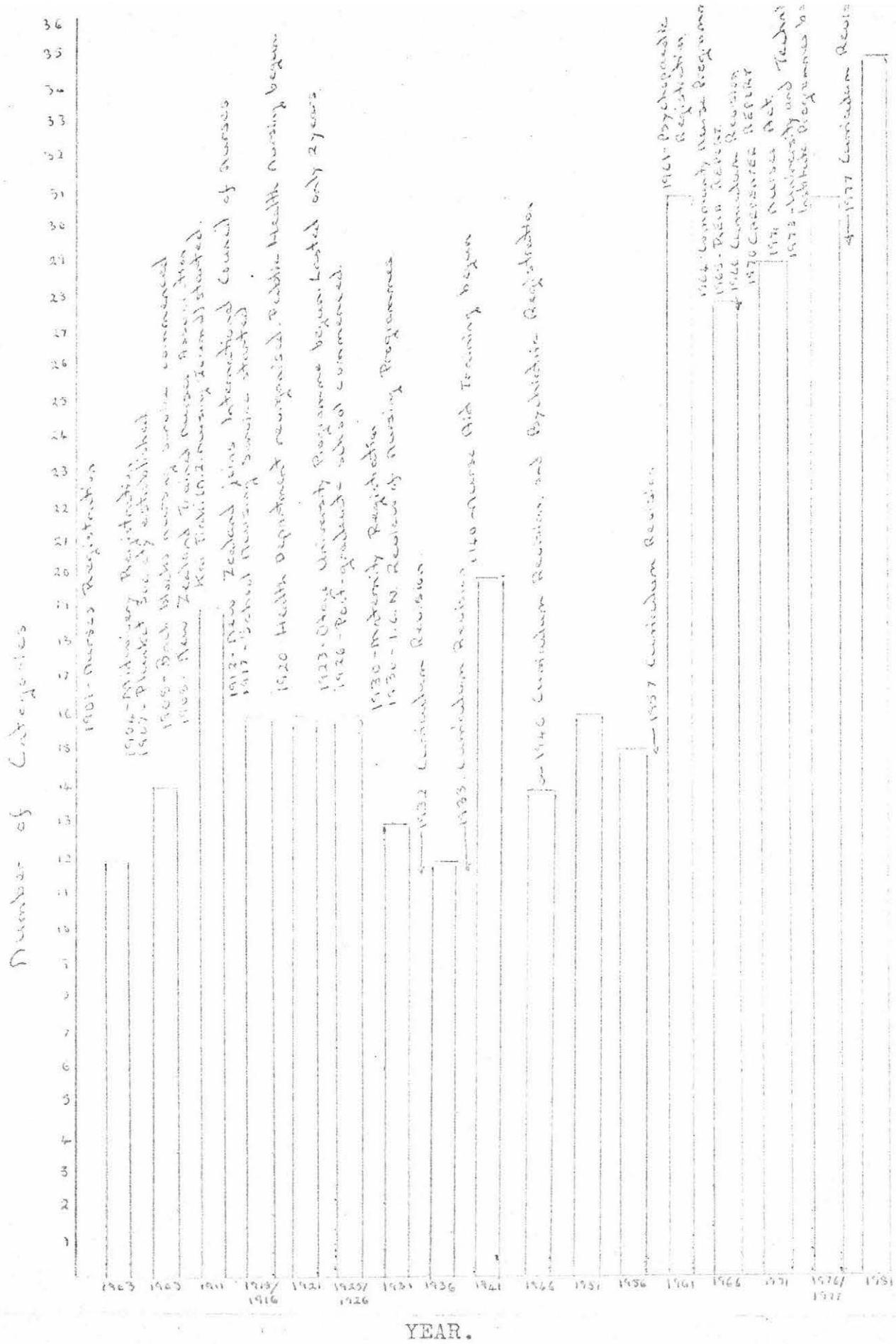


Figure 7.1: The total number of categories used to count the Themes in each Time Period.

Major changes in nursing also included, More detail

Time Line Found in Appendix H.

This increase in the number of categories required to count the themes also reflects the broader more holistic approach to nursing practice that was provided by the 1957 curriculum revision. This curriculum revision, besides reorganising the curriculum content around a body systems approach incorporated content on psychology, obstetrics, geriatrics and ward administration and enlarged the community health component. Cameron (1956) states that this curriculum revision would allow the nurses to assume responsibility for total patient care as she will be a much more knowledgable person" (p.114). The broadening of the curriculum content is another factor which can be related to increases in the number of categories required to count the themes in the 1961 time period. An examination of Table 7.1 shows that the number of categories required to count the themes increased in each of the six dimensions of nursing practice.

The overall pattern shows that the following categories have been used consistently over all time periods:

1. references to a specific patient;
2. functional status;
3. treatments;
4. tests and procedures;
5. interactions/nurse;
6. general nursing care;(not required 1911)
7. complications; (not required 1911)
8. anatomy and physiology
9. examination instructions.

The categories used least are:

1. patients preferences/interests (0);
2. sleep (1);
3. blood pressure (1);
4. ability/disabilities (1);
5. weight (1);
6. t.p.r. (2);
7. specimens (4).

Of the remaining twenty categories only five are not constantly reqired to count the themes from 1961 onwards.

The greatly increased number of categories in 1961 is linked with an increase in the total number of theme counts per examination paper from 142 (1945) to 1269 (1961). Another large increase in the total number of themes occurs in 1981 when there is a rise from 918 (1976 /77) to 4277 (1981). This increase is also a result of a further change in format in the examination papers, for the 1981 examination paper incorporates a section of 80 multichoice questons in its content. In contrast to the effect of the 1957 change of format, the most obvious change is apparent in the increase in total theme counts and is not reflected to any great extent in the number of categories required to count the themes.

The results of theme counts on each of the 32 patient care categories are presented according to the dimension of nursing practice to which they relate. This should enable constancy and difference in the elements comprising the dimensions to be determined. (It is reiterated that for the purpose of this study the six dimensions of nursing practice are considered to have remained constant although their associated elements may have changed). The four auxiliary categories of the content analysis will not be considered as they do not relate directly to patient care.

THE CARE DIMENSION

This dimension incorporates eight categories (refer Table 7.1). Table 7.1 shows the percentage distribution of theme counts for each of the eight categories across the 17 time periods, in the care dimension.

An increase in the total percentage distribution occurs from 8.92% (1903) to 30.34% (1981), with the greatest single increase occurring in 1961 when the total percentage distribution increase rose from 18.94% (1956) to 29.83% (1961). From 1961 a perceptable increase in the percentage distributions in the care dimension categories occurs in each five year period until a peak of 40.77% (1976/1977) is attained. In 1981 a decline of 10.43% is noted. The reason may possibly be connected to the change in format of the 1981 examination paper (80 multichoice questions).

An increasing emphasis placed upon the elements in the care dimension from 1961 is also identified in the historical trends derived from the journal articles. In the 1960's a move from the earlier procedural and medical disease-centered orientation to a more patient-centered one occurs. In the years prior to 1960 several articles, such as an unsigned article (1927) comment on the fact that technical duties are considered by nurses to be more important than nursing duties and states that nurses often forget to meet the basic human needs. A view supported by Thompson (1968). From the result of the analysis of examination papers it would appear that Thomson's (1975) call for the need for:

> a body of people trained and skilled in the practice of the main area of nursing competence, called Nursing Care. (p.4).

has already been acted upon a decade earlier.

Consideration of the individual categories in this dimension (refer Table 7.1) reveals that the two categories of:

- references to a specific patient;
- general nursing care;

are the most frequently required categories to count themes related to care. Examination of Table 7.1 indicates that from 1961 all the categories with the exception of sleep, and patient abilities/disabilities are constant over the time periods.

This reflects the movement in the 1960's towards a more humanistic patient-centered approach to nursing practice. A trend also substantiated in the journal article analysis, (refer Chapter 6 p.122). The effect of the 1957 curriculum revision particularly in relation to the psychology component can be seen by the inclusion of themes in the psychosocial care category. The presence of these theme counts together with those in the categories of references to a specific patient and age of the patient are a reflection of the importance placed upon the need to adapt nursing care to meet a patient's individual needs in recent years. Table 7.1 indicates that the categories of psychosocial care and references to a specific patient show the greatest increase in percentage distributions from their first appearance in categories for theme counts.

There are no themes recorded in the psychosocial category of the care dimension, until 1961. But, when the articles relating to the educational material are considered, documentation of the need to include psychology in the nurse training programmes, occurred from 1938 (Taylor). On the nursing practice side the importance of psychosocial aspects is emphasized from 1908 (refer Chapter 6. p. 129) (refer Appendix G).In 1957 nursing education did not reflect what was occurring in nursing practice in relation to this aspect of the care dimension. It should be noted that decline in the number of theme counts found in the category of general nursing care from 1961 is counter balanced by rise in theme counts in the two categories of physical care and psychosocial care. This explains why the general nursing care category shows a percentage decrease of 6.08% from the time it first contains theme counts (1903) to 1981. This trend is in the reverse direction from most other categories.

From the overall pattern of findings it would appear that nursing has remained constant over the years in some of the elements of the care dimension. But, as the practice of nursing has come more clearly into focus, nurses have recognised that medicine with its predominantly cure activities and nursing with its predominantly "care" activities are two separate identities. Cameron (1963) states that their activities may overlap to some degree because:

> two things are necessary in the treatment of patients; their "cure" and their "care". The cure of the patient is the task of the medical profession and their care the task of the nursing profession. (p.14).

A realisation shared by an increasing number of nurses over the years as the historical analysis of journal articles and the analysis of examination papers substantiate.

THE CURE DIMENSION

The cure dimension incorporates a total of 16 categories (refer Table 7.1), which can be divided into the three broad category groups of observations, treatments and technical skills and procedures. Table 7.1 shows that over the seventeen time periods the importance placed upon the cure dimension has decreased. A comparison of the percentage distribution shows a change from 85.7% (1903) to 47.7% (1981). A Mann Whitney U test on the ranked theme counts of the 16 categories shows that this decrease in the emphasis on elements in the cure dimension of the examination papers (1903/1981) is a highly significant result, of moderate effect ($p < .001$, $rm = .64$).

The percentage distribution for the total 16 categories included in the care dimension is seen to fluctuate slightly over the first 12 of the 17 time periods. The percentage distribution of 83.33% (1951) is of particular note because

it occurs in the first time period following the 1946 curriculum revision. This curriculum revision which emphasised the importance of technical skills and procedures had a disease or procedure-centred orientation.

In the years between the 1920's to the late 1940's journal articles document the increasing importance of technical procedures and skills together with an increase in medical science and technology. Thompson (1968) is one of several authors to comment on the move of nurses in the last few decades:

> away from concentration on sick people to concentration on the mechanical and technical aspects of therapy and care. (p.19).

Cameron (1963), like Orbell (1960) and Broe (1961), believes that nurses are more concerned with technical procedures than the care activities of nursing. Thus a crosscheck of the two data sources substantiates the fact that the care activities associated with nursing practice paled into insignificance beside the ever increasing cure activities in the 1920's to 1940's. The greatest single decrease in the percentage distribution occurred in 1961 when the percentage distribution fell from 67.35% (1956) to 43.3% (1961). This decline in importance parallels the increase noted in the care dimension in this time period. The decline occurs in spite of an increase in the number of categories required to count the themes, following the change in the curriculum and examination format in 1957. The effect of this curriculum revision in providing a broader base upon which to carry out nursing practice and the beginning of the re-emergence of the "care" activities has already been discussed (p. 162). In 1981 a slight increase in the percentage distribution occurs which parallels a slight decrease occurring in the care dimension categories (see Figure 7.2 p.163).

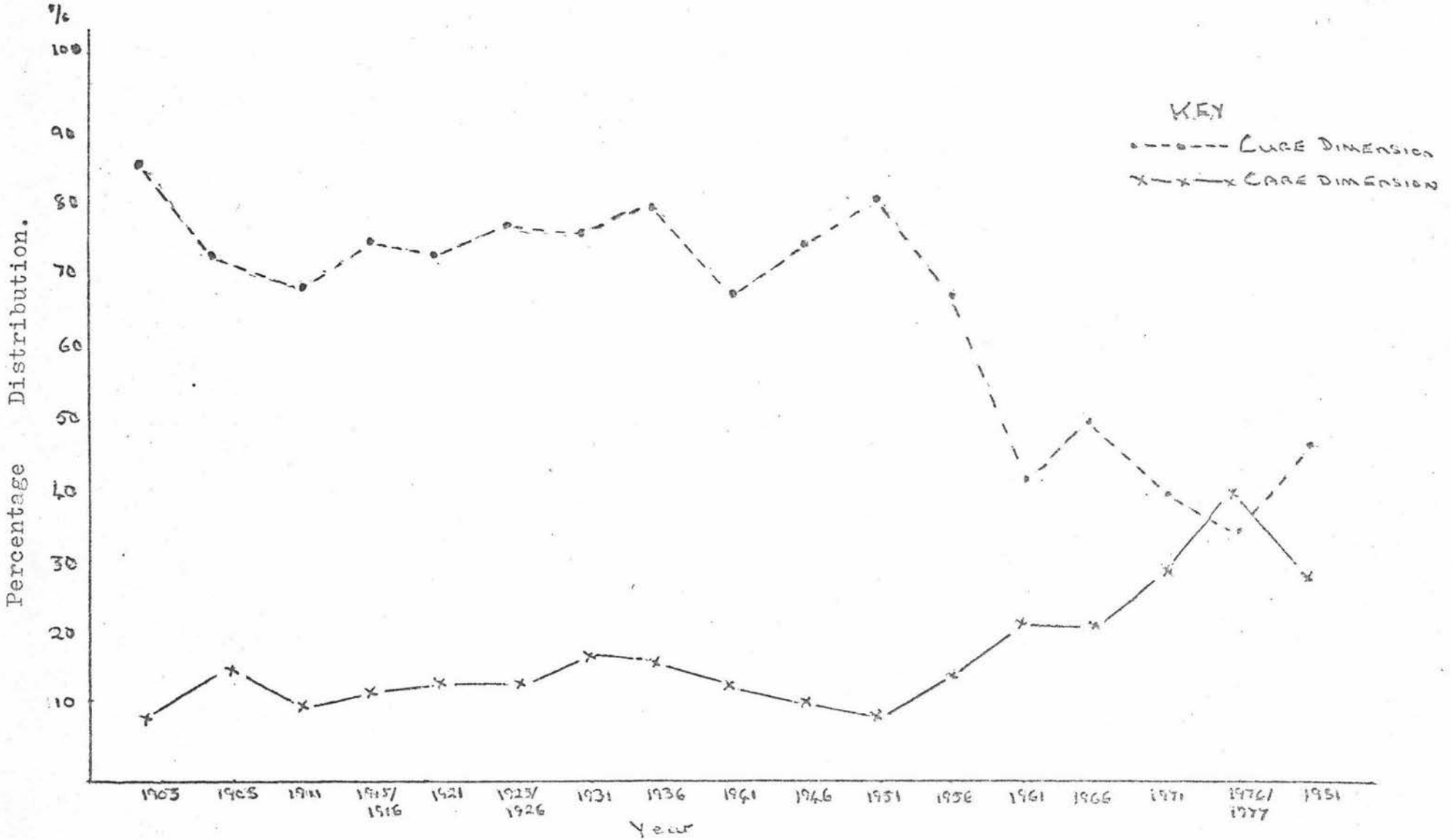


FIGURE 7.2: Care-cure dimension dichotomy in Each Time Period.

The overall pattern of categories in this dimension shows that themes relating to the following categories occur in all time periods:

functional status:
treatments:
tests and procedures.

The categories of
complications (16):
patient progress (14): , and
artificial intake methods (13):

complete the list of the six most frequently used categories. Two further categories, medications (8): and artificial drainage methods (9): are also used in over half the 17 time periods. At the other extreme are the four least frequently used categories of:

blood pressure (1):
T.P.R. (2):
weight (2):, and
specimens (4).

In 1981 all 16 categories in this dimension were required to count the themes.

Consideration of individual categories in this dimension indicates that continual emphasis is placed upon the category of functional status over the years particularly until 1961. An indication of the importance of this category over the years is gained when an examination of Table 7.1 reveals that in ten out of the 17 time periods this category attained the highest percentage distribution of theme counts out of the 32 patient care categories. The increase in theme counts in the test and procedure categories in the years immediately following the two world wars is also noted. This can be explained by the advances made in

medicine during the war years, together with the decrease in medical staff following the wars, which may have tended to lead to the delegation of medical duties and responsibilities to nurses. The two categories of treatments and complications show a marked decline in the percentage distribution of theme counts from the 1950's. The change in the percentage distribution in these two categories and functional status over the years reveals a dramatic decrease from 1903 to 1981.

In light of the emphasis given to observations in the journal analysis the low frequency of theme counts in the categories of observation/assessments, T.P.R., and blood pressure is interesting. McEarchern (1926) states that:

> The doctor on his visit can only formulate a proper birds eye view of the progress of his patient during the past 24 hours by study of the repeated observations made by and recorded by the nurse in his absence. (p.66).

One possible reason for this difference between the data sources may be that these categories are more suited to analysis of student examination answers rather than the examination questions themselves. This comment is supported by the marked increase in all three categories following the change to multichoice in 1981.

THE PROTECTION DIMENSION

Two categories have been used to count the themes in this dimension (refer Table 7.1). Table 7.1 shows that when theme counts from the two categories are combined, omissions occurred in only four time periods. Since 1911 the percentage distribution of themes have decreased from 16.13% (1911) to 6.69% (1981). The trends in the journal also

show the continuing presence of this dimension in nursing practice over the years.

The frequency of themes in the category of professional responsibilities are sporadic until 1961; (Material derived from the journals shows a similar trend);then articles stressing the professional responsibilities of nurses increase. Orbell (1960) comments that increasing responsibilities are placed upon the nurse as doctors continue to hand on to nurses many of the highly skilled and technical procedures. As the complexity of nursing increases doctors rely more upon nurses' observations and judgements of patients. In order to carry out these increasing responsibilities, the nurses knowledge base has been increased and broadened. The recognition that nursing is a profession with professional responsibilities has also been emphasised.

In the precaution category, themes occur during the time periods of the two world wars and constantly since 1956. In the 1960's with the increased visibility of chronic and lifestyle disorders due to the decline in infectious fevers, the need for nurses to focus on the preventive areas of nursing practice becomes apparent. Over the years, advances in scientific knowledge has revealed the causes of many diseases and led to discoveries of how to prevent them. The importance of this aspect of nursing, although recognised from 1907 with the establishment of the Plunket Nursing service in New Zealand has gradually received increasing emphasis in the nurse education programmes from 1956 onwards. The concepts of illness prevention and health promotion are important areas of a nurse's work today as the constancy of theme counts reveals, and the journal article trends substantiate. The lack of importance placed upon the elements in this dimension of nursing practice is discussed in several journal articles in the first half of the century and frequent calls are made relating to the need to incorporate content relevant to this aspect of nursing practice into the nurse curriculum.

THE TEACHING DIMENSION

The inclusion of theme counts in the health teaching category attain constancy from 1951 onwards, while in the second category - patient participation, constancy is attained from 1961 onwards. The importance of hygiene and sanitation in the prevention of infectious fevers is noted in early journal articles, but from the 1960's the importance of health education as a valuable adjunct to the prevention of chronic lifestyle diseases is frequently mentioned. As more nurses work in the community setting, with both the sick and the well, their responsibilities for health education increase . A fact supported by the examination analysis findings. (Refer Table 7.1).

The growth of these elements of nursing practice parallel the increasing visibility of the chronic and lifestyle disorders and the importance placed on the fact that the patient is the person who can decide what is best for himself and act accordingly. From 1961 the constancy of themes in the patient participation category reflects this factor. The emphasis placed upon the need for individuals to make good health decisions through the nurse's role as a health educator and the patient's role as an active participant is recognised. As the importance of the rehabilitative aspects of nursing increased it tended to highlight the need for patient participation. The increase of the total percentage distribution reflects the increase in importance placed on these two categories since 1961. A fact sustantiated by the journal trends. A statement found in a 1924 article from the American Journal of Nursing published in the New Zealand Nursing Journal "Health education is the password of the day" (p.96) is equally relevant today.

THE CO-ORDINATION DIMENSION

The two categories in this dimension (refer Table 7.1) relate to different aspects of the co-ordination dimension. The constancy of theme counts in the nurse interaction category reflects the hierarchical structure of nursing and the fact that nurses used to learn on the job. Both factors necessitate communication between nursing personnel either to delegate tasks, supervise activities, or to give or receive information about a patient's care. The increase in themes in this category in the war years reflects the increasing responsibilities placed upon nurses during these years when, due to a shortage of medical personnel, they had the responsibility to co-ordinate all treatments and procedures for the patient. Over all the time periods those who examined prospective entrants to the profession obviously considered these elements of nursing practice to be important.

The pattern of theme counts in the category of interaction/ health team shows that from 1961 this category is constantly required to count the themes. The widening of the health team concept in the 1960's led to the inclusion of other groups of personnel, such as therapists of different types; dietitians and social workers for instance and people from other agencies outside the hospital.

The increasing importance of the co-ordination dimension of nursing practice can be identified in both data sources. The journal articles stress the value of the nurse as the "co-ordinator" because she is the one person with the patient for 24 hours a day.

Broe (1961), believes that only by a sound knowledge and understanding of one's own work; respect for other's work and a willingness to work with others can the co-ordination role be achieved. Nurses must be able to co-ordinate patient care and assist the patient to move on to the next

phase of care. Cameron (1963) states that co-ordination of patient care..."is a major responsibility of a nurse" (p.13). Nurses must be taught how to improve interpersonal skills to carry out this role effectively, according to Broe (1961).

THE PATIENT ADVOCACY DIMENSION

Examination of Table 7.1 shows that only one category in this dimension has ever been required to count themes. The reason for the non-use of the category of patient preferences/interests might be explained on the basis that content for this category is more likely to be found in student's answers to examination questions, rather than the question themselves. On the other hand, as the multi-choice development in 1981 shows no increase, the depressing conclusion can be drawn that nurse's are not concerned with their patient's preferences.

Theme counts have only been included in the category of nurse/patient interaction since 1961. The increasing importance placed on this role is reflected in the trends in the journal articles. The articles emphasise the role of the nurse in humanising the hospital and providing the sympathy, kindness and understanding needed by patients to help them to gain peace of mind. In the past Cameron (1963) states:

> nurses have often been criticised for their lack of communication and consideration of the personal needs of the patient. They have felt that giving treatments and medication on time were the most important aspects of the patient's care. (p.13).

The data obtained from both sources (examination papers and journals) supports the fact that since the 1970's, especially, the importance of nurses establishing a therapeutic relationship between themselves and the individual has been emphasised. Nursing is increasingly being described as an interaction between nurse and individual, and the importance of education including psychology, sociology and interpersonal skills has been recognised.

SUMMARY

The trend analysis data elicited from the examination papers (refer Figure 7.1 and Table 7.1) shows that over the 17 time periods (1903-1981) investigated in this study the actual number of patient care categories required to count the themes increased from 10 (1903) to 31 (1981). The greatly increased number of categories is linked with a significant increase in the total number of theme counts from 56 in 1903 to 3258 in 1981 ($p < 0.05$ a moderate effect). An examination of Table 7.1 reveals that the increase in the number of categories required to count the themes and the increase in the total number of theme counts is apparent in all six dimensions of patient care.

The greatest single increase of both categories and theme counts occurred in 1961 when the number of categories rose from 15 (1956) to 31 (1961) and the total theme counts from 142 (1956) to 1269 (1961). Application of the Mann-Whitney U test in the 1956 and 1961 time periods to the nine categories consistently used over time (refer p. 160) reveals a highly significant change ($p < 0.001$) with a large effect ($rm = .71$).

Consideration of the data on Table 7.1 indicates that over the years both constancy and difference are evident in the elements comprising the six dimensions of nursing

practice. Five patient care categories have been consistently required to count the themes in all time periods. They are:

references to a specific patient;
functional status;
treatments;
tests and procedures; and
interactions/nurse.

These five categories are found in the care (1); cure (3) and co-ordination (1) dimensions of patient care.

Sixteen of the total 32 patient care categories are required to count the themes in over half the 17 time periods (refer Table 7.1). With the exception of the patient advocacy dimension, each dimension of nursing practice contains at least one of these 16 categories. From 1961, 22 of the total 32 categories are required consistently to count the themes and in contrast to the earlier time periods, at least one category is found in each of the six dimensions of nursing practice. Also the cure dimension categories are not as predominant as in earlier times (refer Table 7.1). The changes occuring in 1961 as noted earlier can be attributed to the change in format of the examination paper and the 1957 curriculum revision. Consideration of the trends identified in the journals substantiate these findings for although reference relating to all six dimensions of nursing practice are found in articles throughout the time period, since the 1960's increased emphasis has been placed upon the five dimensions of care; protection; teaching; co-ordination and patient advocacy.

As already stated constancy and difference are apparent in the categories relating to each dimension of nursing practice, however, as Table 7.1 shows one of the most obvious changes occurs in relation to the percentage distributions of the care and cure categories. Figure

7.2 indicates the fluctuations occuring in these dimensions over the years. A rise in the theme count and percentage distribution in one dimension frequently led to a corresponding decrease in the other dimensions. From 1961, with the exception of 1981, the trend has been noticably towards an increase in the emphasis placed upon categories in the care dimension with a corresponding decrease in the emphasis placed upon the cure dimension categories. This factor is substantiated by articles in the journals which comment upon the occurrance of a similar trend in relation to the care-cure dimensions of nursing practice.

SECTION 4

In this section the findings relating to the changes occurring in the elements of the six dimensions identified in the nursing care of patients with accidental trauma are presented. Consideration is first given to the findings relating to the identification of historical trends in the material pertaining to this specific aspect of nursing practice derived from the New Zealand Nursing Journals 1908-1981. A trend analysis of the data gained from the five yearly sample of Surgical State Examination Papers in relation to the nursing care of patients with accidental trauma is then presented and discussed. The conclusions reached from the analysis of the examination data over time are then cross checked with the trends identified in the journals. The content of this section is divided into two chapters.

Chapter Eight: A Specific Aspect of Practice: an analysis of the dimensions and elements of nursing in relation to patients with accidental trauma (N.Z.N.J.), 1908-1981.

Chapter Nine: Readiness for A Specific Aspect of Practice: an analysis of accidental trauma questions in the Surgical State Examination Papers, 1903-1981.

CHAPTER EIGHT

A SPECIFIC ASPECT OF PRACTICE: AN ANALYSIS OF THE DIMENSIONS AND ELEMENTS OF NURSING IN RELATION TO PATIENTS WITH ACCIDENTAL TRAUMA (N.Z.N.I.) 1908-1981

In this chapter the findings relating to changes occurring in the elements comprising the six dimensions of nursing practice in association with the care of patients with accidental trauma are presented. This aspect of nursing has been chosen for this study because it is an area of nursing connected with a great deal of social change (refer p. 56).

This chapter is divided into two parts. In part one the six functional components of the nurse practice system (C) are used to collect and collate the material derived from the journal article analysis to identify changes in the composition of nursing practice in this specific aspect. Part two presents the material derived from the journal using the functional components of the nurse education system (A) to collect and collate the data. The chapter concludes with a brief summary of the main points.

THE CARE DIMENSION

Many of the early references to the elements of nursing practice which make up "care" dimension are located in the answers to State Final Examination questions printed in the journals. During the two world wars, letters from nurses serving overseas which are printed in the nursing journals, also serve to augment the specific journal articles on this subject.

In a series of sample examination answers (authorship not stated) relating to the nursing care of patients suffering from accidental trauma the following are found:

compound fracture of the shaft of a femur (1908);
compound fracture of a tibia (1908);
fractured femur (1909);
fractured base of skull (1917);
three questions of different types of lacerations (1911);
nursing a patient with a scalp wound (1913);
fractured thigh (1919);
head injuries (1930);
and fractured spine (1930).

They all stress the need to provide the basic essentials of health; including keeping the patient warm and providing a quiet atmosphere to enable them to get rest and sleep, to help prevent shock, and aid recovery. Other activities are advocated, the provision of a good nutritious diet, plenty of fluids and the need for fresh air, and the importance of carrying out the basic handicrafts of nursing such as presure area care. Change of position and the maintenance of hygiene to ensure patient comfort, are also constantly emphasised. In another unsigned examination answer (1916) pertaining to the nursing care of a patient with burns, the above comfort measures are augmented by the inclusion of the need for sunlight. The provision of all these elements are described as the measures that "support patient recovery" (p.71).

During the war frequent references are found in letters from nurses serving overseas in army field hospitals, casualty clearing stations, and hospital ships, about the importance of these supportive measures to the recovery of patients suffering from accidental trauma. Palmer (1915); Jones (1915); Unsigned letter (1916); Maguire (1916); Neil (1917) and a further Unsigned letter (1918), describe activities such as hygiene, diet, rest, comfort

and use of the basic handicrafts of nursing. Articles by Bowlby (1915) and Bennett (1918) also document similar points of view. The documentation of these "caring" activities designed to meet the patients needs, continues during the second world war in articles written by Gilfillan (1941); Young (1940) and Cohen (1941). While Mulgan (1946) when talking of her nursing days in the second world war particularly emphasises the value of hygiene when caring for wounded people. An unsigned editorial (1942) stresses the importance of providing quiet; minimising pain; and gentle handling to help prevent the occurrence of shock in any patient suffering accidental trauma. Yet another unsigned article (1942) advocates that:

> care is more important than speed when treating an accident victim. (p.234).

A view fully supported by Gillies (1942) in his article on emergency treatment of muscles, bones and joints.

Although the majority of articles pertaining to accidental trauma are associated with the theatre of war, a few articles comment on the nursing care of patients with accidental trauma unrelated to war wounds. For instance O'Regan (1935) advocates relief of pain, warmth and fluids to help combat the surgical shock, which may follow any type of accidental trama. While Johnson (1941) reports on the need to meet dietary needs and change the position of a patient being nursed in a "breathing machine" following respiratory difficulty due to an accident or illness. E.W. (1937) in discussing a specific case where a child fell on a hat rock and Train (1936) explaining the care of a patient with a haemoarthrosis following an accident both stress the activities relating to physical elements of nursing care. They also state that the patient may need a special nurse to help to meet all their needs; including the need to reduce a person's anxiety. Graham

(1936) in his article about head injury patients comments:

> each case presents its own individual problems, which have to be met as they arise, and during convalescence a bright mental atmosphere and treatment by nurses play important parts. (p.140).

Pickerill (1940) reports that the aim of:

> the nursing service is firstly to attend to the wellbeing of the patient, and their comfort, to enable the patient to get well as quickly and comfortably as possible. (p.367).

Although in some of the earliest journal articles patients are referred to as "cases" or "fractures" most of the articles from the inception of the N.Z.N.J. refer to patients either as a patient or in the case of case studies by individual names.

Up until 1914 no references to actiivities relating to the elements of psychological care are evident. In 1914 an unsigned article discussing the nursing care of a patient with a compound fracture of the skull refers to the need to provide special nursing care for a "patient" who is confused"(p.76). While Palmer (1916) comments upon the "good concerned care" provided for patients in a casualty hospital. Macleod (1916) in an article reporting about the type of care needed by wounded soldiers, stresses the importance of the provision of leisure activities to keep the soldiers' minds occupied during their convalescence, while the physical injuries heal. Russell (1940) also advocates the need for special psychological care for the soldiers who he states often suffer from "war nerves" and shell shock. Nurses he believes must be aware of this and be prepared to offer constant reassurance, and recognise the need to spend extra time with these patients to help meet their needs for pyschological comfort.

Pickerell (1940); Cohen (1941) and Tennant (1944) also believe that nursing includes activities relating to psychological care for these needs usually accompany the physical ones. The suggestion is made by Inman (1940) that the nurses' role is widening to incorporate the activities of occupational therapy as one means of meeting the psychological needs of those who require long convalescent periods following accidental trauma. Although this concept originated during the war it was also to extend into civilian nursing as shown by an article by Wallis (1944), when discussing the ways used at Rotorua Hospital to help meet the psychological needs of patients after accidental trauma. Pickerill (1940) when talking of plastic surgery following accidents states that because this type of surgery can only be carried out when a patient is well, the psychological aspect of care is of prime importance. Although in general surgery he believes this is not always the case.

Following the end of the war articles on accidental trauma nursing became more specific to the different types of trauma, yet the need for physical and psychological care can be traced in these articles. Reader (1963), in a case study about a patient with a fractured skull, emphasises the importance of hygiene, pressure area care, diet, rest and sleep to enable the patient to recover. She also stresses the need to provide continual encouragement. Boumphrey (1964) advocates the importance of careful handling, pressure area care, skin care, and high protein diets and fluids to promote as much recovery as possible in a paraplegic patient. She suggests that the psychological factor is "of major importance in the management of these patients" (p.11). Bolduc (1958); Anderson (1967); Mackintosh (1967); Fryett (1967) and Webster (1978) all stress the importance of activities relating to physical care. They believe that it is essential to meet the patients basic needs to enable comfort and sleep. Further-

more, the patients' psychological needs and the need to adapt patient care to meet individual needs according to factors such as age, and other social data, is recognised by these authors. Goodwin (1948) believes that:

> active (people) who have received gross injuries are prone to think they will never be able to function again. (p.219).

Patients suffering trauma often appear depressed and worried unless their psychological care is effective, for patients also need "will power and a desire for recovery" (p.218). Furthermore the author suggests it is important that these patients be treated as human beings with both physical and psychological needs. Hartmann (1958) when discussing the case of a haemophiliac child with haemoarthrosis after an accident emphasises the need to deal with the psychological aspect of care to help the child rest and lessen apprehension. Bouphrey (1964) offers a similar view point.

Fryett (1976) documents the value of combatting anxiety and pain in these patients by nursing care activities, for both factors can lead to shock. While Howard (1950) advocates that:

> a shocked patient inevitably feels cold. ...A cold patient is a miserable patient and the application of warmth...serves to comfort the body and relieves anxiety of the mind. (p.168).

C.M.R. (1950) when discussing the role of the industrial nurse in New Zealand also comments upon her responsibility in treating accident victims in factories as well as the need to prevent accidents. In order to do so she suggests that the nurse must care for the workers' physical and psychological well being because she believes that disturbances in either one aspect or both of them can be a cause of accidents. Davis (1959) while agreeing with C.M.R. (1950) also advocates the need for industrial

nurses to have a good knowledge of the basic principles of nursing practice and nursing procedures if they are going to be able to provide good nursing care in the factory setting.

Over the years there is increasing evidence of the use of Intensive Care Units to provide nursing care for patients who are very ill. Many of these are victims of accidental trauma. Orbell (1961) states that the value of an Intensive Care Unit is that:

> patients are given better nursing care. They have constant expert attention and do not have to share with those requiring less. (p.14).

But, as Ford (1968) comments nurses must always remember that the "patient" is most important and not the machines, if a high standard of nursing care is to be provided and all the patient's needs met. A belief supported by Mercer (1971) who suggests that:

> the patient (must) be given the optimum care and attention, while the equipment surrounding the bed is of secondary importance. (p.22).

Thus one of the major activities in the Intensive Care Unit is the ability to meet the physical and psychological needs of each patient; (including the relief of pain, and the provision of comfort and hygiene measures, to provide rest and sleep). A similar emphasis upon the elements of the "care dimension" are apparent in the other units which over the years have become associated with the care of accidental trauma victims. Hopkins (1975) and (1978) says that the Spinal Units emphasis upon:

> immediate, intermediate, and long term physical, psychosocial and social readjustment. (p.26).

is very important as it enables nursing care, both physical, and psychological, to be adapted to meet the individuals needs. The use of team nursing Hopkins (1981) believes further assists nurses in meeting these needs. Bell (1973) in an article about nursing in the Rehabilitation Unit suggests that nurses are responsible for the provision of "basic nursing care and supervision for individuals" (p.15). The vital importance related to meeting a patients psychological needs in Critical or Intensive Care Units is emphasised by Thomssen (1981) and Gardiner (1978). Gardiner (1978) states:

> No patient can be relaxed if he is frightened and anxious. Fear is very real...As the patients awareness increases...so does his fear...constant reassurance and simple but adequate explanations...are essential. (p.8).

Brown (1970) also stresses the need for psychological care and physical care in an article discussing the nursing of a patient suffering accidental trauma as a result of attempted suicide. Trusler (1981) believes that psychological and emotional support is a vital adjunct to physical care in nursing patients in a burns unit. She suggests that:

> burns are among the largest wounds people receive and treatment can be frightening and painful. (p.6).

Bell (1973); Hopkins (1975 and 1978) and Webster (1978) also tell of the importance of assessing the patient's abilities and disabilities in order to plan nursing care that includes patient participation and which meets the needs of individual patients. Hopkins (1981) states that nurses involved in rehabilitation must realise that:

> the more we take away from the patient the more we will have to hand back. (p.25).

To sum up, articles relating to a variety of nursing practice settings stress the need to meet the person's basic health needs and to carry out the associated "handicrafts" of nursing. Over the years the need to provide psychological care has increased in importance although direct references can only be found in the journals from 1914 onwards. In the earlier years, however, comments on the need to provide "comfort" to prevent shock show an awareness of this idea (1908 & 1909 examination answers).

THE CURE DIMENSION

There are frequent references in the early journals to the need for nurses to "observe". In 1908, a sample examination answer refers to the need to watch colour, warmth and movement of toes in a patient who has a fractured femur. The checking of bandages to ensure that they are not too tight is stressed in the care of a patient with a fractured tibia (1909). An unsigned examination answer (1909) stresses the recording of the patient's vital signs and the need to watch for pressure areas in a patient with a fractured femur. In 1913 and 1917 the need to watch for any oozing in three cases of accidental trauma is documented. There are other references to observation in articles relating to the provision of nursing care for a patient with a fractured skull (unsigned 1914) and in an examination question (1917). A further unsigned article (1930) emphasises the need to also observe for changes in colour, and any evidence of bleeding (ooze) or paralysis in a patient with head injuries. Graham (1936) advocates:

> that an alert nurse making systematic observations and fully alive to the danger signs and their significance may stand between the patient and death. (p.140).

Others to stress the value of good observation are Train (1936) and E.W. (1937). Eisdell (1938) comments on the importance of a careful watch being kept on patients if they are to recover. She also suggests that nurses should be aware of the likely signs and symptoms of any complications that may occur in a patient with head injuries. Cohen (1941) and Bolduc (1958) support this viewpoint when they emphasise the need for nurses to be aware of changes in the pulse rate of a patient with burns and haemoarthrosis respectively. The pulse rate provides perhaps the most reliable guide to the patients condition. Over the years the importance of observations continues to be stressed by authors in relation to judging a patients progress and in recognising and preventing complications. All the articles listed on Table 8.1: that are marked with an "0" include references to observations of functional status, and vital signs. In the articles from 1970 onwards references are frequently made to observations and nursing assessments in evaluating a patient's progress. The electronic monitoring systems, Orbell (1961); Jahoda (1961) and Mercer (1971) believe can only be used as a guide or adjunct to a nurses observations, they do not replace the nurses observation skills.

Paralleling the changes in medical science and knowledge, were advances in the preventive services of the country, such as the public health, district nurse, plunket nurse and industrial (or occupational health) nurse. The importance of the power of "observation" in the work of these nurses to enable them to carry out their roles and responsibilities is also stressed by several authors. An extract from an unsigned article delivered at the International Council of Nurses' Congress (1948), suggests that part of the industrial nurses role is to make:

> provisional diagnosis...in all cases of injury and (carry) out appropriate treatment, (p.57).

as well as safeguarding workers health by paying attention to the safety hazards where they are employed. This article also offers advice relating to the need to keep accurate records. C.M.R. (1950); Davis (1959) and Frische (1975) all stress the importance of nurses advising on accident prevention in the community setting and emphasise the value of good observational skills in carrying out this role. Thus the importance of observation has been described in a variety of nurse practice settings over the years. Observational skills continue to be essential broad category elements of the cure dimension over time.

In the first half of the century many articles are written on specific types of treatment. Examples are an article by Bowlby (1915) on war wounds; Sheen (1911) shell wounds; Young (1916) orthopaedic injuries; Kendell (1917) crafts; and Wylie (1931) orthopaedics; for example. Table 8.1 records the different articles in the New Zealand Nursing Journal that relate specifically to nursing care of patients with accidental trauma from 1908 to 1981. Many of these articles refer to specific types of treatments or other elements of the cure dimension. For, as medical science and technology advanced so did treatments; especially in the years during and immediately following the war. In all the articles (refer Table 8.1) the importance of functional status is mentioned as it is in the early articles and examination questions. The presence of other activities in the cure dimension such as treatments, medicines and surgical appliances are also documented in the journal articles over the years. Table 8.2 shows some of the specific references to different types of treatments, medicines and surgical appliances that are found in journal articles over the years. The Table clearly shows the changes occurring in treatments relating to accidental trauma over the years.

TABLE 8.1: TO SHOW SPREAD OF ARTICLES ON ACCIDENTAL TRAUMA (In New Zealand Nursing Journal 1908-1981

Year of Article	Author of Article	Observation	Cause of Accidental Trauma	Title of Article
1914 April	Unsigned	o		Compound Fractured Skull Injury
1915 April	Sheen A.W.	o		Skull Wound
1915 April	Boulby A.	o		Care of Wounded
1916 October	Young W.M.	o		Some Notes on Treatments at Base Hospital
1917 January	Herbert A.S.	o		Physical Treatment of the Wounded
1920 July	Wylie D.S.			Orthopaedics - Progress
1921 July	Mercier O.F.	o		Treatment of Burns
1930 March	Unsigned	o		Head Injuries
1935 July	O'Reagan R.	o		Surgical Shock
1936 July	Graham R.S.A.	o		Head Injuries
1936 Nov.	Train W.	o		Case of Foreign Body
1937 July	W.W.	o		An Interesting Surgical Case
1938 March	Eisdell	o		Head Injuries
1940 August	Sinclair-Louht	o		Abdominal Wounds - First Aid Observation - Treatment
1940 August	Russell J.	o		War neurosis and the Nursing Care
1940 November	Pickerill H.P.	o		Nursing of Plastic Surgery Case
1941 July	Axford M.	o		Modern Treatment in War Injuries affecting limbs
1942 March	Page			The Rescusitation of War Casualties
1942 April	Hope-Robertson			First Aid Treatment of War Injuries
1943 April	Brownlee I.J.	o		Burns
1944 September	Tennent A.A.	o		Rehabilitation from the Psychological aspect
1944 November	Falconer			Head Injuries
1945 August	B.M.J.			Treatment of Shock
1950 June	Taylor C.N.D.	o		Accidents in the Home
1960 June	Milliken T.W.	o		Some Aspects of Plastic Surgery
1961 July	Orbell E.B.			Is There An Answer - Progressive Patient Care

1961 August	Chisolm M.		electricity	Curing the Badly Burned
1961 December	Carson D.		electricity	Severe Burns - Case Study
1962 June	Bremner Abel			Artificial Limb
1962 July	Magill			An Emergency
1963 December	Jebson		auto accid	Intensive Care Unit - Chest Injury
1963 December	Reader D.I.		auto acid	Case Study - Head Injuries
1964 December	Begg			First Aid Treatment for Children in accidental poisoning
1964 October	Boumphrey		auto acid	The paraplegic Patient
1965 June	Watt J.M.			The Battered Body
1965 July	Spence M.		drowning	Acute Respiratory-Unit (Part I and Part II
				Multiple chest injuries
1967 January	Anderson E.N.		fall from tree	Fracture-dislocation of the 5 Cervical Vertebrae
1967 December	Mackintosh		boiling water	Burns
1970 January	Brown L.B.		drugs	
1973 May	Teki A.		accident cases	Saturday night emergencies
1973 Dec	Bell S.J.			Rehabilitation
1975 Oct	Hopkins R.B.			In a Spinal Injuries Unit.
1976 Dec	Webster R.		car accid.	Fractured Femur.
1977 May	Unigned article			Spinal injury Units and rehabilitation
				Children admitted to Ward One Hutt Hospital.
1978 September	Karn			Triage Nursing in Accident and Emergency
1981 April	Trusler E.		industrial matches	Burns
1981 April	Fryett P		boiling water	Susan A. Paediatric Burns pat.
1981 May	Hopkins R.B.			Spinal Injuries, nursing and the nursing process
1981 June	Hayes A			Emergency Service

TABLE 8.2: SPECIFIC ELEMENTS OF THE CURE DIMENSION REFERRED TO IN JOURNAL ARTICLES 1908 - 1981

Year	Author	Treatment
1908	References in unsigned examination answers	Splints applied for fractures
1909		Asepsis
1911		Use of Massage
1913		
1915	Sheen	Asepsis
1915	Bowlby	Asepsis
1915	Jones	Asepsis
1917	Sinclair-Loutit	Asepsis
1916	Cherry	Use of Thomas Splint for Fractures
1916	Young	Advances in Orthopedics: plating and pinning of fractures
1918	Kendall	Use of Frog Grafts
1937	Hall	Tannic Acid Treatment of Burns
1937	Burgess	Cod-Liver Oil Treatment in Wounds
1941	Cohen	Use of Chemotherapy
1941	Bertangi	Use of Sulpha Drugs
1941	Johnson	Breathing Machine
1943	Brownlee	Grafts
1947	Guthrie	Shock Cradle
1950	Howard	Electric Blankets
1960	Milliken	Plastic Surgery Advances
1961	Chisholm	Exposure Treatment in Burns
1961	Orbell	Use of Monitors
1961	Jahoda	Use of Electronic Equipment
1965	Spence	Mechanical Ventilation
1968	Ford	Use of electronic equipment and respirators
1971	Mercer	
1978	Gardiner	Respirators - mechanical
1981	Thomssen	Use of electronic equipment

Besides the mention of the specific treatments (refer Table 8.2) references in case studies are made to specific medications; special diets; patient activity; artificial drainage and intake methods. Spence (1965) tells how nurses must prepare drugs for administration; suction the patient; control intravenous therapy and monitor vital signs in a patient following accident trauma. Mackintosh (1967), discussing a nurses duties when caring for a patient with burns documents the need to monitor vital signs; give medications; record an accurate fluid balance; monitor intravenous therapy; provide a diet high in protein and vitamins; encourage ambulation and other exercises. Similar statements are made by Carson (1961); Reader (1963); Anderson (1967); Hopkins (1975 and 1978); Fryatt (1981) and Trusler (1981). All these case studies also stress the importance of the prevention and early recognition of complications. The majority of references to specimens in the case studies are made in relation to the need to assist the doctor to obtain blood specimens, although Bolduc (1958) discusses the need to collect and observe urine, stool and vomitus specimens for signs of blood when nursing a haemaphiliac patient following accidental trauma. Mackintosh (1967); Trusler (1981) and Fryett (1981) talk about the need for regular wound swabs and urine specimens to be sent to the laboratory when nursing patients with burns. The vital importance of prevention and early detection of urinary tract infections by frequent monitoring of urine samples is emphasised by Boumphrey (1964); and Hopkins (1978 and 1981) in articles relating to nursing patients with spinal injuries.

Patients suffering from accidental trauma often require an anaesthetic or some type of surgical treatment and they are frequently x-rayed on admission to hospital if journal articles are correct.

From 1936 articles about the need for nurses to expand their first aid skills increase. For example Graham (1936) discusses first aid in treatment of head injuries, while Sinclair-Loutit (1940) gives advice about first aid treatment of abdominal wounds. An unsigned editorial (1942) emphasises the fact that increasing demands are being placed upon the technical skills of nurses and advocates the need for nurses to increase their first aid skills to enable them to deal with the ever-recurring-emergencies" (p.67). In short nurses must be prepared to give first aid as well as nursing care.

> Every individual should learn to give immediate care to the injured - the arrest of haemorrhage, the treatment of shock and resuscitation. (p.67).

Gillies (1942) in an extract from an article issued by the Ministry of Health in England (1942); and B.M.J. (1945) also support this view point. An unsigned article presented at the International Council of Nurses (1948); and articles by Davis (1959) and Meachan (1960) discuss the need for Industrial nurses to learn to carry out emergency treatments with regard to minor injuries. According to an Unnamed Post Graduate student (1931) nurses working in hospitals also need to have skills in first aid treatments. These skills she believes can be furthered by students working in outpatient and casualty departments. Teki (1973) and Hayes (1981) also advocate such experiences to be of value to nurses.

Several other changes and advances in relation to technical skills and procedures are also reflected in articles about the nursing care of accidental trauma patients. The fact that in the 1940's nurses were beginning to be expected to assume many of the technical duties formerly carried out by doctors is stated by Aitkens (1940) in telling of nurses duties at the war front:

> Nurses should be thoroughly conversant with all the available and effective methods of oxygen administration...in addition to blood transfusions, nurses will be called upon to prepare for giving intravenous M and B pentothal, glucose, saline and gum solutions. They may also be required to pass catheters, wash out stomachs and assist with operative procedures. (p.321).

Bolduc (1958) and Carson (1961) are two of the first authors to write articles discussing the use of intravenous fluids and plasma for accidental trauma victims. A common theme in later journal articles where the nursing of accidental trauma victims is referred to. Reader (1963) cites the use by nurses of oxygen and suction apparatus together with trachectomies. The most common type of artificial drainage methods referred to in case studies are the urinary catheter and the suction catheter. Although Gardiner (1978) and Spence (1965) both make several references to endo-tracheal tubes. An article by Orbell (1961) discusses the nurses responsibility in using complicated and mechanical equipment in the special intensive care units where critically ill/injured patients are nursed. Johoda (1961); Jebson (1963); Spencer (1965); Ford (1968); Gardiner (1978) and Thomssen (1981) all comment further upon the use of electronic equipment in the different types of units where patients suffering from accidental trauma may be nursed.

In summary, over the years the elements comprising the cure dimension of nursing practice continue to remain highly visible especially from the late 1930's to the late 1950's. In the early years of this century as medical knowledge and science advanced, new treatments were evolved to care for the patients. The war years also provided impetus for advances in surgery which greatly benefited patients suffering from accidental trauma. Of particular note were the advances in orthopedic and plastic surgery

along with the increased use of antiseptics and asepsis in the first world war which decreased the loss of life from wound infections. These advances were to prove equally effective in the treatment of accident victims in civilian life.

In the late 1930's many new treatment skills and procedures were incorporated into the nurses' role and this fact placed increasing importance upon the elements of the cure dimension of nursing practice, often to the detriment of the care dimension elements. In the 1960's the concept of the special "units"; (begun in the wartime); spread to civilian medicine with the advent of critical care units to provide a place for the "intensive" nursing of critically injured/ill patients. These units incorporated the use of the newly developed electronic equipment to monitor the patients condition and to augment the nurses observational skills. Thus nursing practice became increasingly complex and specialised over the years and nurses were expected to carry out many treatments formerly carried out by the doctor.

THE PROTECTION DIMENSION

The earliest references to elements of the protection dimension of nursing practice are those relating to the prevention of complications following accidental trauma found in the unsigned examination answers published in the journal. The most common ones are prevention of shock (1911; 1913; 1914; 1917), wound infection (1908; 1909; 1911; 1914); bedsores (1908; 1909) and haemorrhage (1909; 1913). Many of the letters from nurses in army service also refer to the need to prevent infection in wounds. For example an unsigned article (1915) states that gangrene is a major problem. Sheen (1915); Bowlby (1915); Jones (1915); and Bennett (1917) all mention the

need for asepsis as do Chisolm (1961); Carsen (1961); Mackintosh (1967) and Trusler (1981) in later years. The prevention of shock following accidental trauma has been a constant theme over the years as shown by references in an unsigned article (1930); O'Regan (1935); Graham (1936); E.W. (1937); Eisdell (1938); Aitkens (1940); Cohen (1941); Carsen (1965); Reader (1963); Spence (1965); Macintosh (1967) Trusler (1981) and Fryett (1981).

Although the need to prevent wound infection and shock are most predominant, other references are also found pertaining to the need to prevent complications specific to each type of accidental trauma. For instance Bumphrey (1964) when discussing the care of a paraplegic case cites the need to prevent pressure sores. Articles by Jebson (1963); Mercer (1971); Hopkins (1978 and 1981) and Gardiner (1978) relate to nursing accidental trauma victims in various types of units. Trusler (1981) and Fryett (1981) speaking of the care of patients with burns also comment upon the need to prevent psychological complications.

Over the years and more especially since the 1940's a variety of journal articles have referred to accident prevention in hospitals and community settings. As Nicholls (1979) states "accidents and their prevention are nursing concerns" (p.6). Table 8.3 gives a summary of these articles according to the setting and nursing practice area to which they relate. In relation to accident prevention in hospitals Laity (1972) suggests that:

> in our hospitals today, most staff consider themselves to be extremely safety conscious and all emphasise the safety precautions taken in their environment. (p.7).

TABLE 8.3: JOURNAL ARTICLES RELATING TO THE PREVENTION OF ACCIDENTAL TRAUMA 1940-1975

Year	Setting	Author	Article Relating to Prevention of Accidental Trauma
1940	Hospital	Unsigned	Cross infection in the wards
1941		Miles et al	Prevention of Hospital Infection
1942		Osbourne	Series of articles on precaution in air raids
1948		Simmers & Peel	Drug Dispension Precaution
1948		Howard	Danger of Hotwater Bottles
1950		Standard	Prevention of Self Injury
1965		Unsigned	Use of Safety Belts for Hospital Patients
1962		Jeram	Radiation, Health and Safety
1972		McConnell	Safety in the Operating Room
1972		Adam	Safety with Outpatients
1972		McInnes	Safety in the District
1972		Lusty	Accidents - Who's Responsible?
1972		Lyon	Safety in the Psychiatric Field
1961	Community	W.H.O. Release	The Children's Enemy Accidents
1962		Dept. of Health	Prevention of Blindness in Home and Factory Accidents
1963		Higgins	Safety in the Water
1967		Silverwood	Accidental Poisoning in Children
1969		Dept. of Health	Drugs and the Child
1970		Police Dept.	Rules Save Children
1972		Taylor	Home Accidents
1972		Hastings	Safety
1973		Selby	A Community Health View
1974		Light	Crash - Automobile Accidents
1976		Dunkley	Women and X-rays

1927	Community Nursing	Unsigned	Nurse in Industry
1949		Unsigned	Industrial Welfare Worker
1945		Cruickshank	Industrial Nurse
1945		Post Graduate	Industrial Nurses role to prevent
1946		Menzies	The Work of Nurse in Industry
1948		unsigned	The Development of Industrial Nursing
1950		C.M.E.	Progress of Industrial Nursing in New Zealand
1959		Davis	The Occupational Health Nurse
1961		unsigned	Youth in Industry
1963		Dept. of Health	Occupational Health Programmes
1969		Taylor	The Changing Pattern of Occupational Health
1973		Neill	Safety and the Industrial Nurse
1973		Nicholls	The Nurse and Accident Prevention (Plunket Nurse)
1975		Frische	Occupational Health Nursing
1978		Greenstreet	Occupational Health Nursing as Community Health
1981		Voyce	Occupational Health Service
1960		Meachen	Civil Preparedness means survival
1960	Civil Emergencies	Meachen	Civil Preparedness means survival
1967		Seath	Civil Defence Plan
1970		Murray	Disaster Planning
1973		Wells	Don't Die Through Neglect (Civil Defence)
1975		Wheeler	Auckland Exercise "Mislaid"

Hastings (1972) uses Henderson's quote to emphasise that the prevention of accidents is only one facet of the protection dimension. Part of a nurses' professional responsibility is to:

> help the patient avoid the dangers in the environment, and protect others from any potential dangers from the patient such as infection and violence.
> (Henderson, 1969 p.37).

In relation to the community setting Selby (1973) advocates that throughout their lives people are constantly exposed "to issues which could predispose towards injury or incapacity" (p.5). Nurses she believes have a role to protect patients from these potential dangers. Greenstreet (1978) emphasises that promotion of health and the provision of safety are the prime concern of industrial nurses, therefore the detection and prevention of workers from occupational health hazards is a major part of the occupational nurses role. In the last section on prevention (Table 8.3) Wheeler (1975) is one author to suggest that the need for adequate preparation of nursing personnel in case of civil emergencies is essential.

> Nurses must be familiar with emergency procedures and equipment. (p.24).

Articles, over the years also refer to aspects of the nurses professional responsibilities. From the 1960's particularly, increased emphasis is made in case studies about the nurses responsibilities in relation to medications. Hopkins (1981) also documents the importance of nurses being able to write accurate reports and being able to give adequate accounts of the patient conditions. Gardiner (1978) discussing the increased responsibility of nurses working in units comments that they must be able to interpret changing physical signs and take responsibility for initiating emergency cares for critically ill patients.

To sum up, references in journal articles to some of the elements of nursing care incorporated in the protection dimension have continued to appear over the years. In the pre-1940's articles, the chief emphasis relates to the need to prevent shock, wound infection and complications of specific accidental injuries. Since 1940 however due to the increasing visibility of accidental trauma as a cause of injury and death the protection dimension has broadened to include accident prevention not only in hospitals but in a variety of community settings (refer Table 8.3). Subsequently the preventive nursing services have increased their responsibilities in this area. From the 1960's increasing emphasis is found in journal articles relating to the importance of nurses professional responsibilities.

THE TEACHING DIMENSION

Some of the earliest references to the elements in this dimension are in relation to the nursing care of trauma patients during the First World War. Palmer (1915); Berby (1916) and an unsigned article (1917) tell of the teaching of orderlies that was carried out by nurses in the field hospitals. An unsigned article (1927) relating to the work of the industrial nurse comments on her role of teaching and advising the workers. Similar references occur in the second world war, as evidenced by an unsigned editorial (1942). Slye (1942) states that the orderlies who had had no previous experience were "obliging and good pupils...always interested to learn" (p.309).

In the 1940's with the growth of industries in this country, the role of the industrial nurse began to expand and her responsibility to teach and advise workers in order to help prevent accidents occurring in factories is emphasised by Cruickshank (1943); Menzies (1946) and an unsigned

journal article (1948). Davis (1959) states that one function of the occupational health nurse is:

> to assist with safety programmes and in training first aid personnel...To give guidance on health and welfare matters whether pertaining to the occupational environment or to individual concerns. (p.56).

In the 1960's the teaching dimension broadens to parallel the changes occurring in the closely allied protection dimension. A World Health Organisation Press Release (1961) concerning health education cites education as:

> the systematic training of (people), by practice and example, to understand the risks and know what action to take to avoid them...It is the third pillar of prevention. (p.36).

An unsigned article reported in the Journal from Health (1961) suggests that:

> the young worker must be educated and trained in the correct use of her tools and machines and safe work habits. (p.26).

Reid (1965) believes that the occurrance of accidents is;

> largely governed by inexperience, bad habits, lack of training and home conditions. (p.11).

To this list Higgins (1965) adds carelessness; for if people exercised just a little more care, heeded advice, and took a few more precautions the situation could improve. Silverwood (1967) cites the need to educate people to make them aware of the dangers. She believes that:

> as nurses in the community we can all, each and every one of us...help bring about more of an awareness of the danger. (p.4).

An article (1970) by the Police Department supports the fact that knowledge can be very valuable in preventing accidents. Hastings (1972) advocates that nurses have a responsibility to teach patients, hospital staff, relatives and friends. To do this effectively she believes nurses must appreciate:

> factors contributing towards safety in the home, the hospital and the community. (p.30).

Selby (1973) suggests that although in the 1960's safety education made people far more aware of the need to carry out safety precautions, more education is still needed. Neill (1973) cites the importance of industrial nurses incorporating safety advice with on-the-job education. Teaching, Simpson (1980) suggests should not only be carried out in the community but also in the hospital. "Teaching the patient is a nursing function" (p.3).

In articles from 1961 onwards the importance of the patient participating in their own care is emphasised. Carsen (1961) tells how a patient suffering from burns to the lower half of his body is taught over a six month period to look after himself and learn how to live an active life again. Anderson (1967) stresses the value of patient participation in teaching programmes for people with spinal injuries. Hopkins (1978) offers a similar point of view for:

> spinal injuries may justly be considered a permanent disability. Thus a problem of learning to live with what is left...This is not a task for the patient alone. (p.13).

Bell (1973) when discussing the concept of rehabilitation states that patients must often learn new methods of coping because the degree of residual disability and the length

of the stay in such a unit depends upon their ability to learn to cope with their own progress towards their state of mobility and independence. Hopkins (1981) similarly believes that patients must be involved in their own care if problems are to be eliminated and progress achieved.

In summary, a study of articles shows that although references to teaching are sparse in the years before 1960, from this time onwards the increasing visibility of accidental trauma in this country (due to the decline in infectious fevers) emphasises the need for nurses to teach and advise people about how to reduce accidents. As Nicholls (1973) states nurses:

> have many opportunities to influence (and) educate....All nurses can help prevent accidents by personal example and teaching, those whose work takes them into private homes have greater opportunities than many others....Accidents and their prevention are nursing concerns. (p.6).

THE CO-ORDINATION DIMENSION

This dimension includes the elements of nursing practice relating to the co-ordination of patient care. The earliest references relating to this dimension are found in articles pertaining to accidental trauma during the years of the first world war. Many of the nurses letters published in the journal document the fact that at the war front, skills in the co-ordination of personnel were necessary to provide effective patient care. As Palmer (1915) states every person needed to know their role and to carry it out effectively. Bowlby (1915) and Berby (1916) discuss the 'team' concept which was used in the casualty stations at the war front to co-ordinate patient care. Berby (1916) comments that it takes some organising

to co-ordinate a team of "voluntary aids, orderlies and nurses" (p.20). Similar references appear during the second world war in articles by Young (1940) and Russell (1940) and Gilfillan (1941). Pickerill (1940) cites the need for effective co-operation between the nurse and the patient in caring for patients following plastic surgery. He believes that this:

> co-operation between patient, doctor and nurses is necessary to prevent the graft from dying. (p.346).

In another journal article, Wallis (1943) advocates the need for co-operation between hospital staff if the patients rehabilitation needs are to be met. An unsigned editorial (1942) discussing the need for nurses to have first aid skills, states:

> during recent years many changes...and wartime conditions have led to greater co-ordination within hospital work. It is this proper team work which makes for efficiency and maximum benefit to the patient. (p.67).

Slye (1942) remarks that the nurses work in the field ambulance was not only to care for the patients but also to supervise and teach the orderlies and to co-ordinate patient care.

As the number of people involved in health care expanded, references to the need for the nurse to co-ordinate patient care also increased. Howarth (1946) suggests that the physiotherapist has a valuable part to play in the rehabilitation of accident victims but:

> the foremost and most important thing is there must be absolute unity between staff ....In the ward a physiotherapist must consider the nursing staff and co-operate with the sister in charge. (p.31).

Howarth believes that co-ordination with and consideration of all the team members is essential if the patient is to return to a normal and healthy life. She cites the roles of a variety of health care personnel who comprise part of the rehabilitation team along with the medical and nursing staff.

In the community preventive nursing services, co-ordination of patient care is also considered essential. Menzies (1946); and an unsigned article (1948) suggest that it is essential that nurses co-ordinate their role in factories with the management and with agencies outside the factory for the good of the workers welfare, and to prevent accidents. C.M.E. (1950) believes that to be effective:

> very close co-operation and understanding on the part of the management and the worker is required. (p.37).

Davis (1959); Whaiora (1966) and Frische (1975) all support this viewpoint.

Rehabilitation, which begins as soon as a patient enters hospital, Whaiora (1966) believes is only possible if the work of the doctor, nurses and other related servcies are adequately:

> co-ordinated for the patients capabilities, mental and medical must be assessed and all factors influencing his illness and recovery considered. (p.32).

Hopkins (1975; 1978; and 1981) states that the number of people in the team caring for patients in spinal units has grown so rapidly over the years that a gread deal of time and effort is needed to co-ordinate patient care to prevent fragmentation of care. The size of the health team caring for accidental trauma patients in the ward setting has also increased and requires considerable

efforts in co-ordination according to Bolduc (1953); and Boumphrey (1964).

Thus as with the other dimensions of nursing discussed, the elements of the co-ordination dimension are able to be traced in the articles in the nursing journals over the years. The importance of this dimension was particularly recognised during the war years due to the team approach used in the casualty hospitals at the battle front. From the 1960's the increase in the visibility of accidental trauma paralleling the decline in infectious fevers, together with the growth in the number of people in the health team accentuated the need for the increase in co-ordinating elements in nursing care. The advent of critical care and rehabilitation units further stressed the importance of these elements as articles describe.

THE PATIENT ADVOCACY DIMENSION

One of the earliest references to elements in this dimension is made by an Unnamed Post-Graduate student (1930) who comments on the value of outpatients experience for students because it allows them to get an idea of the type of follow up treatment needed for patients suffering accident trauma and lets them become aware of the patients problems in adjusting back into home life again. Graham (1936) discusses the need for nurses to work with patients and their relatives, together, with the need for nurses to make positive suggestions to the patient to help them achieve recovery. E.W. (1937) supports Graham's views, for by caring about and getting to know the relatives it is possible to gain their confidence and co-operation. This helps to get "the helpful co-operation of the patients" (p.157).

During the second world war with the recognition that war neurosis can occur, several articles discuss the need for nurses to become the patient's advocate, and to help the sick to vary their thoughts while providing encouragement and reassurance. Russell (1939); Atkinson (1945) and Waworth (1946) believe that patients with shell shock or other mental symptoms need diversional therapy, frequent explanations, constant reassurance and time spent with them to enable them to re-establish their self-assurance and capabilities. Inman (1940) advocates the need for nurses to encourage handicrafts to not only exercise muscles but to keep the mind busy while the body heals and so make the person feel useful.

Pickerill (1940) states that because patients having plastic surgery following accidental trauma are often feeling well, the importance of a spirit of:

> goodwill, interest and lively co-operation between the nurse and the patient, (p.346).

is essential. Like Cohen (1961) he believes constant encouragement and assurances do much to aid convalescence. Patients undergoing a long stay in hospital, need personal attention paid to them, as individuals, according to Wallis (1934), to help them in their rehabilitation. Gillies (1942) believes that:

> in addition to the skilled care a nurse must remember her presence instils confidence. (p.201).

The importance of elements relating to this dimension of patient care is revealed by examining the case studies relating to accidental trauma patients. Anderson (1967) tells about the need to prevent patients from becoming depressed and worried by trying to understand their problems; McCluskey (1961) emphasises the need to listen to patients and assess each individuals needs; Jebson

(1963) comments upon the need for privacy and pleasant surroundings for patients, to help them feel more at ease; and Brown (1970) the need to listen to patients and so get to recognise their cries for help. Hopkins (1955) states that a patient in a spinal unit:

> needs to be able to tell someone what he thinks....One needs to have a great deal of patience with them. To listen to them, to help them to work out their difficulties, to try to understand their outlook. (p.21).

Gardiner (1978) also suggests that relatives can assist the nurse to get to know the patient and his probable difficulties so enabling nursing care to be adapted accordingly. In relation to critically ill patients nursed in Intensive Care Units Gardiner states that:

> the nurse is the one the patient and family look to for trust, support, confidence, understanding and compassion...An emphathic nurse who takes the time to see her patient as a person, an individual. (p.10).

Thus elements of the patient advocacy dimension are able to be identified in articles relating to the nursing of patients with accidental trauma from the 1930's onwards. Over the years the amount of emphasis placed upon these elements has increased, especially from the 1960's. The advent of patient centered care in recent years has led to increasing emphasis being placed upon this dimension. However as Gardiner (1978) states "it is not an easy role" (p.10).

KNOWLEDGE, ATTITUDES AND SKILLS

In this section the educational material derived from the journals in relation to the nursing care of patients with accidental trauma is presented. Over the years the emphasis placed upon each of the three dimensions of nursing education has fluctuated as nursing education has endeavoured to keep pace with changes in nursing practice. Because it is argued in this study that the elements that comprise the content of a nursing curriculum must be the same elements that constitute nursing practice (refer p.40), the educational material derived from the journals is organised under the six dimensions of nursing practice previously identified. The number of references to the educational aspects of accidental trauma is limited, however much of the data included in the education material in the general historical review (refer Chapter 5) is considered equally relevant to this section.

THE CARE DIMENSION

From the beginning of nurse training in New Zealand the need to teach nurses to "care" for patients following accidental trauma has been recognised. The published sample examination answers stress the need to carry out the basic handicrafts of nursing such as pressure area care, hygiene, change of position and the necessity to provide patients with a nutritious diet, fluids, fresh air, sunshine and the need to encourage them to rest and sleep. These "caring handicrafts" can be identified in the case studies written by student nurses as part of the requirements of their nursing education programme. Examples are found in articles written by Carson (1961); Reader (1963); Anderson (1967); Mackintosh (1967) and Fryett (1981).

Together with need to teach nurses to meet the physical

aspects of nursing care, the importance of meeting a patient's psychological needs is also emphasised. Dean (1937) talks about the need to treat the "patient" first and then the cause of the disease. Commenting on the nursing care of patients with accidental trauma he states that:

> more important than the knowledge and treatment training is the proper attitude towards the patient. (p.255).

Nurses he believed should have training in psychology. Russell (1940); Pickerall (1944) and Inman (1940) all support this point of view. They advocate that if a patient's mind is understood and kept occupied during the often lengthy physical rehabilitation process the patient can be made to feel useful again and is helped to re-establish his/her self assurance. The International Council of Nurses (1931) suggested that the duties and responsibilities of nurses (refer Appendix F) also includes the need for nurses to be prepared to give "general" nursing care to accident cases.

The need for nurses to learn to meet the physical and psychological needs of patients in this specific aspect of nursing continues to be stressed over the years. In 1957 the incorporation of a psychology component in the curriculum further emphasises this aspect. As Cameron (1956) advocates, the inclusion of this component, together with an increase in hours in the public health section of the curriculum shows the importance of learning to give skilled nursing care for the "whole" person in accordance with their needs.

From the 1960's the advent of Intensive Care Units is evident and there are many reports of accidental trauma patients being nursed in these units. Orbell (1961) and Powell (1961) are two authors who comment on the need

to broaden the curriculum in order to meet the changing health needs and nursing roles. Powell (1961) states that:

> the basic curriculum should provide a broad and sound foundation for the effective practice in all fields. (p.22).

Patients in these units according to Orbell (1961) need concentrated nursing "care" and nurses must be educated to realise that the special equipment in these units is only an adjunct to the caring activities. Broe (1961) offers a similar point of view and she stresses the need to "re-plan nursing education to meet the new developments" (p.21).

To sum up, over the years the elements associated with the care dimension are consistently stressed in relation to teaching student nurses the nursing care of patients suffering from accidental trauma. Curriculum revisions in the years succeeding 1957 continue to emphasise the "care" aspects often to the detriment of the "cure" aspects.

THE CURE DIMENSION

Within this dimension, unsigned articles continually stress the importance of observation and emphasise specific aspects of treatment.

Wylie (1921) advocates the need to teach students about orthopaedic surgery which deals with injuries to bones resulting from accidental trauma. He states that it;

> utilises knowledge and applies various methods of treatment learnt in the war for the benefit of the civilian population. (p.119).

The International Council of Nurses (1931) incorporates the study of nursing relating to the surgical special-

isation of orthopaedics in the suggested curriculum outline. In their list of duties and responsibilities of nurses the I.C.N. includes a reference to nurses being able to provide first aid in emergencies. A special component relating to emergency nursing and first aid is also included in the content of this curriculum. In the 1932 curriculum revision in New Zealand, content on instruction in orthopaedics and bacteriology were included.

The inclusion of content on bacteriology in the nursing curriculum was important, and especially during the First World War the need for cleanliness and asepsis to prevent gangrene and other wound infections is constantly stressed. McCaw (1922) suggests that:

> the treatment of wounds in the early period of the War showed how vague were our ideas of asepsis and our means of combatting it. (p.7).

A further curriculum revision in 1938 extended the scope of the preliminary examination to include instruction in hygiene and bacteriology together with nursing procedures and anatomy and physiology. The need for asepsis and the importance of training in orthopaedics according to the journal articles are the two most commented upon aspects in relation to the educational material pertaining to accidental trauma in the early years of this century.

The advent of the second war revived interest in the need for nurses to learn first aid skills. This is shown in the following extract from an unsigned editorial (1942) which comments on the increasing demands which war has made upon the technical skills and the scope of nursing.

> Their activities are no longer restricted to the spheres of... purely nursing procedures, they must be prepared to undertake the immediate care of injured persons - to give first aid as well as nursing care...

> Every individual should learn to give immediate care to the injured - the arrest of haemorrhage the treatment of shock and resuscitation. (p.67).

The author goes on to say that an emphasis on first aid skills will be useful in all types of nursing including industrial nursing, for it increases a nurse's efficiency and benefits those under her care.

The continuing emphasis placed upon the cure activities is often considered by writers to be to the detriment of the care dimension. An unsigned article (1944) points out that the increasing need for nurses to carry out the technical skills has led to:

> a tendency for them to overlook the simpler human needs of the sick (and wounded) and to undervalue the basic everyday nursing procedures and personal services which are the basis of all nursing. (p.127).

In 1945, prior to the 1946 curriculum revision, an unsigned editorial states that nurses are called upon to perform a far greater variety of duties and technical skills than were nurses a generation ago and consequently:

> the knowledge gained during the basic training must be correspondingly comprehensive. (p.179).

In the 1946 curriculum revision a small accident and emergency component found in the second year surgical nursing component is noted to consist of lectures on wounds and tissue healing; haemorrhage; syncope; burns; scalds and skin grafts. While in the final year content on injuries relating to the muscles-skeletal system; chest; abdomen and head and spine were included amongst the 16 hours allocated to surgical nursing.

References in case studies written by student nurses as part of their nursing training continue to emphasise the need for nurses to learn about specific treatments associated with the care of patients suffering from accidental trauma. Carson (1961); Mackintosh (1967) and Fryett (1981) for example discuss specific aspects of the treatment of patients with burns; Reader (1963) treatments in relation to head injuries, and Webster (1976) those related to a patient with a fractured femur. Other articles such as those by Orbell (1961); Broe (1961); Powell (1961) and Cameron (1963) discuss the use of Intensive Care Units and nurses education in relation to the special equipment in the care of these patients.

To sum up, as advances in medical science and technology have increased, the importance of the "cure" activities in relation to the nursing of accidental trauma victims has been emphasised. However from the 1960's the re-emergence of the "care" activities of nursing practice and the increasing emphasis placed upon "caring" as opposed to "curing" activities in each succeeding curriculum revision enables nurses to learn to incorporate the cure with the care activities.

THE PROTECTION DIMENSION

The importance of teaching nurses the need for cleanliness and asepsis in order to prevent wound infections and gangrene has already been commented upon earlier in this section. From the early years of this century references in articles relating to the need to educate nurses in aspects of preventive medicine show that it was recognised that nurses had a role in preventing disease/injury and promoting health. In the 1940's increasing importance was placed upon the preventive services and the role of nurses in this field.

The call for changes in the curriculum to prepare nurses for the preventive community services by providing a programme with a broader base has already been discussed (refer p.142 of this study). Taylor (1939) advocates that emphasis must be placed upon "prevention and not only treatment" and states:

> it is the function of nursing to teach health in order that men and women may live the full and good life.... She should be able to discriminate between the practices and conditions which are desirable for healthy living and those which are the reverse....She must have knowledge of the basic principles involved in living ....The function of nursing is to tend, to nurture, to protect and to administer. (p.242).

The 1946 curriculum revision introduced some instruction in the social and preventive aspects of nursing in order to extend the importance of healthy living and the application of nursing to a wider setting. Cameron (1956) suggests that one purpose of this curriculum was "to endeavour to encourage emphasis on health promotion and disease prevention" (p.111).

Denman (1951) discusses the value in sending student nurses in their final year out for at least one day with the industrial nurse to help them to understand the nurses roles and responsibilities in health promotion, illness prevention and the detection of industrial hazards which are likely to cause accidents.

A statement from the World Health Organisation Expert Committee on Health (1956) states:

> Although the fundamentals of nursing have changed, little progress in the field of health and changing patterns in the lives

> of all people have evolved many new problems which have effected nursing, thus the curriculum should emphasise throughout the prevention and health aspect of nursing along with the care of the sick. (p.231).

The 1956 curriculum revision increased the emphasis placed in nursing education upon the public health component. Turbott (1957) states that the nurse of the future must "be trained" to have a good preentive outlook (p.106). To achieve this the nurse he believed should be taught background subjects such as sociology and psychology. Cameron (1956) supports this point of view.

Silverwood (1967) and Hill et al (1968) are two authors who stress the importance of education to enable nurses to teach people about the causes and preventive aspects of accidental trauma. In 1966 a further curriculum revision sees the introduction of content on accident, emergency and disaster nursing and health education as separate components in the basic curriculum and the extension of psychology, and public health nursing components. The curriculum content was indeed changing in an endeavour to prepare nurses to meet the changing trends in health care.

As McKenzie (1972) suggests:

> Nurses are now caring for patients who have undergone surgery which would not have been thought possible 20 years ago.... Patients are being kept alive by modern drugs, and with the help of machines... the possible upsurge in the social illness (such as) accidents...means there will be more patients who need to learn to cope with a physical or mental disability. (p.26).

Accidents are not always able to be prevented and over the years the increasing use of complex machinery and advances in technical procedures used to treat those suffering from accidental trauma have provided impetus for the increase in intensive care, burns, spinal and rehabilitation units.

Amidst all these changes Hastings (1972) advocates the continuing importance of safety in any teaching programme.

> It is best taught integrated throughout the whole programme, which is a persons need at home, at work, at play, sick or well.... The common causes of injuries or mishaps and patients hazards encountered are discussed with reference to special characteristics of age. (p.29-30).

For as Selby (1973) stresses no one is immune from accidents and by making people aware of the need and the reasons for practicing safety procdures health education is an important part of accident prevention.

Because health hazards and health needs of people vary over the years and from community to community it is essential that nurses are taught to detect and understand health hazards and are able to recognise the implications that arise from them in order to promote health, prevent injury and adapt nursing care to meet each patients individual needs.

Nicholls (1973) believes that the nurse can use her knowledge of the human life cycle, of psychology, of sociology, and group dynamics;

> to help prevent accidents. For she believes that the prevention of accidents is a nursing concern. (p.4).

To sum up, over the years the importance of the nurse in the area of accident prevention receives increasing recognition as evidenced by articles on the subject in the journals and the greater emphasis placed upon it in the curriculum.

THE TEACHING DIMENSION

One of the earliest references to the educative elements associated with this dimension of nursing is made by Taylor (1938) who states that:

> the true spirit of nursing cannot be cultivated without an understanding on the part of the nurse, of the laws which make and keep people well. (p.60).

In an article the following year Taylor (1939) stresses the fact that it is a function of nursing to teach health in order that men and women may live the full and good life. (p.200).

In order to do this Taylor believes nurses must first learn the principles involved in living. The International Council of Nurses (1931) also emphasises the need for nurses to teach patients about how to care for themselves so as to maintain health. In order to do this Taylor believes nurses must learn considerably more than just the technical aspects of nursing. They must have a knowledge of the social, emotional and health aspects of nursing. A further curriculum revision she believes is necessary to provide them with a good all round training. With the decline of the infectious fevers in the 1950's and the subsequent increased visibility of the chronic and lifestyle diseases (of which accidents is one aspect) the need for health education and the protection elements of nursing to be stressed was realised.

An article by the World Health Organisation (1956), particularly mentions the need for nurses to be taught how to teach "first aid child care" (p.206).

By the 1960's the prevention of accidents and the related subject of health education are beginning to increase in importance. The growth of the preventive component in the basic education programme Davis (1961) believed allowed students to correlate their theory in first aid, personal and community health and social aspects of health with the practice of public health and enabled them to see the effect on environmental conditions upon people; first aid and safety in the community and the value of health education and community campaigns. In such a way the value of accident prevention, and health promotion activities in nursing were emphasised.

The revision of the syllabus in 1957 helped to emphasise the role of the nurse as a health educator for it broadened the curriculum and placed increased emphasis upon the publich health component, and preventive aspects of nursing. As a W.H.O. Press Release (1961) states one of the three pillars of prevention of accidents is education.

> The systematic training of children, by practice and example, to understand the risks and know what action to take to avoid them. (p.36).

Health education is therefore considered one of the important aspects of a nurses role and must be learned by all nurses. Turbott (1957) agrees that nurses must be trained "to undertake health education"(p.106). In spite of this fact however another W.H.O. Release (1967) suggests that the role of the nurse as a teacher of health is often neglected as her role in the prevention of ill health and accidents is often not fully understood.

Thompson (1968) also stresses that the nurse must be educated to teach.

Hastings (1972); Selby (1973) and Nicholls (1973) are others who emphasise the need for nurses to learn how to carry out health teaching responsibilities. Selby (1973) believes that although people are far more aware of the need to practice safety precautions it is the responsibility of nurses "to understand accident factors, [and] to encourage safety education in its broadest concept" (p.6). Hastings (1972) discusses the idea of written assessments to allow students the opportunity "to test the nurses appreciation of the factors contributing to safety" (p.30).

To sum up from the 1960's increasing emphasis has been placed upon the need for nurses to be taught how to educate people to prevent accidental trauma, although occasional references are found before this time.

THE CO-ORDINATION DIMENSION

The earliest references to the need for nurses to be taught aspects of the nurse co-ordination role are found in the 1940's. Menzies (1946) and an unsigned article (1948) emphasise the need for nurses to learn to co-ordinate their work with others in the area of industrial health. Lambie (1953) suggests that nurses cannot work alone but must work as a member of a team. Therefore she advocates that the nurse has a co-ordinating role for which she must be educated. A W.H.O. Press Release (1961) emphasises the need for nurses to co-ordinate with others to help prevent accidents.

Broe 1961 believes that the wider scope of care means that nurses must learn to work with others in a variety

of health care settings in and outside the hospital. Therefore she maintains that students should be taught the basic principles of co-operation and communication with others. Nurses, Watts (1963) states must learn how to deal with others if the safety and comfort of patients are to be maintained.

A view supported by Spence (1965) in his discussion on nursing in an acute respiratory unit. Hopkins (1981) similarly advocates the need for nurses to be taught to work in a team.

To sum up only a few references are found relating to the need for nurses to be taught the co-ordinating activities in relation to this specific area of nursing over the years. However since 1960 references have increased slightly.

THE PATIENT ADVOCACY DIMENSION

The need for student nurses to gain experience in the outpatients department to allow them to gain an understanding of the total needs of patients following accidental trauma is first advocated by an Unnamed Post Graduate Student in 1930. There has also been increasing emphasis placed upon the need for nurses to be taught psychology, and references made relating to the importance of the patient advocacy activities in the nursing of patients with accident trauma. Articles by Russell (1940); Pickerill (1940); Inman (1940) and Waworth (1946) are examples. Lambie (1953) also emphasises the importance of psychology and interpersonal relationships for all areas of nursing.

The inclusion of psychology in the curriculum in 1957 helped to emphasise the importance of the patient advocacy

dimension and the subsequent curriculum revisions each providing a more humanistic interactional approach stresed the need even more. The fact that nurses are taught the importance of patient advocacy is revealed in the case studies written by student nurses as part of their basic education requirements. McCluskey (1961) emphasises the need to listen to patients so as to be able to assess their needs, and Anderson (1967) tells how important it is to prevent patients from worrying and becoming depressed.

To sum up, from 1930 traces of the patient advocacy elements can be identified in journal articles relating to the nursing of patients with accidental trauma from this time onwards. Increasing emphasis is placed on these activities particularly from the 1960's. Thus emphasis on the two elements of this aspect of nursing practice over the years is extended as changes occur in the revised curricula.

SUMMARY

In this chapter, the material relating to the changes occurring in the elements comprising the six dimensions of nursing practice and nursing education with reference to accidental trauma has been presented. Except for the patient advocacy dimension the trends identified parallel the findings in the general trend analysis (Chapter 5). Fluctuations in emphasis occur in the six dimensions of patient care at different time periods over the years as elements comprising the six dimensions of nursing practice exhibit both constancy and difference.

Throughout the time period (1908-1981) the care dimension and its associated elements are apparent although during the 1920's to 1940's they were overshadowed by the cure dimension activities. From the late 1940's a gradual re-emphasis in importance of the care activities occurred until by the 1970's nurses had incorporated the care with the cure activities. Consideration of the educational material derived from the journal articles reveals the emphasis in the 1930's and 1940's upon cure activities. Although from the 1950's a gradual reversal of trends occurs. This is similar to the pattern outlined in Chapter 5.

References to protection and teaching are identified over the years. In the 1960's the numbers of references increase. This increase can be related to the decline in infectious fevers which occured at this time with concomitant increases in the visibility of accidental trauma. In the 1977 curriculum review, renewed emphasis was placed upon the public health component and the need to nurse the well and the sick.

Constancy in the elements associated with the co-ordination dimension is also apparent although the frequency of references to this dimension increase from 1960. A similar situation occurs in relation to references to the patient advocacy dimension although the first reference to this dimension does not occur until 1930.

Hastings (1972) believes that the emphasis upon accident prevention and safety as a major part of teaching in any nurse education programme must continue. Nurses need an educational programme that will enable them to help patients to avoid danger in the community; allow them to protect people from potential dangers and also help an accident victim to attain the highest possible level of health following an accident.

To achieve this nurses need a basic education with a broad base that enables them to attain the appropriate knowledge, attitudes and skills to allow them to practice nursing in a variety of health care settings. Nurses must be able to provide safe and effective care in the acute care, long term care and primary care settings. They must be able to decide what type of action to take to eliminate or minimise the health hazards responsible for the occurrence of accidental trauma. This may include the establishment of a special health education programme so as to increase public awareness of a specific hazard or it could be the institution of appropriate safety procedures.

In the next chapter of the study the connective link between the nurse education and the nurse practice system - the examination system - will be used to carry out a content analysis of the examination questions in relation to this specific aspect of nursing practice. To avoid comments about selective perception the analysis from both data sources will be cross checked.

CHAPTER NINE

READINESS FOR A SPECIFIC ASPECT OF PRACTICE: AN ANALYSIS OF ACCIDENTAL TRAUMA QUESTIONS IN THE SURGICAL STATE EXAMINATION PAPERS, 1903 - 1981

In this chapter a trend analysis of data elicited from the five yearly sample of questions pertaining to accidental trauma in the surgical State Examination papers is presented and discussed. The results are examined in the light of material on accidental trauma published in the New Zealand Nursing Journal.

Table 9.1 shows the number of theme counts in each of the 36 categories defined in Appendix D. Thirty two of these categories represent elements of nursing practice and each is considered in the 17 time periods (1903-1981). With the exception of 1921 when there was no question containing themes relating to accidental trauma, Table 9.1 shows the percentage distribution of theme counts in each of the 32 patient care categories.

Distribution of Questions Relating to Accidental Trauma

Figure 9.1 shows the occurrence and number of questions which contained accidental trauma themes in relation to the total number of questions for each time period. With the exception of 1921 questions containing theme counts relating to accidental trauma have occurred in each of the seventeen time periods (refer Figure 9.1). In 1915/16 a ratio of 4:12 questions occurred (33.3%) and in 1936 the ratio was 4:11 (35.8%). The first in 1915/16 may be related to the occurence of the first world war and the consequent increase in injuries due to accidental trauma at this time; while the second time period occurs

TABLE 9.1: PERCENTAGE (AND ACTUAL) DISTRIBUTION OF THEME COUNTS PER TIME PERIOD
(The Actual number of theme counts in each category is given in parenthesis)

CARE DIMENSION CATEGORIES.

Category of Patient Care	1903 T1 %	1908 T2 %	1911 T3 %	1915/16 T4 %	1921 T5 %	1925/26 T6 %	1931 T7 %	1936 T8 %	1941 T9 %	1946 T10 %	1951 T11 %	1956 T12 %	1961 T13 %	1966 T14 %	1971 T15 %	1976/77 T16 %	1981 T17 %	% Change Over 1 year
General Nursing Care		15 (3)		2.32 (1)		23.08 (6)	10.53 (2)	11.54 (3)	5.88 (1)		10.53 (2)	23.08 (3)	2.25 (6)	2.99 (5)	1.26 (2)	4.6 (11)	0.86 (11)	-14.14
Physical Care				4.65 (2)					5.88 (1)						0.68 (1)		2.20 (28)	- 2.45
Pain															0.68 (1)		0.55 (7)	- 0.08
Sleep																	0.16 (2)	
Psycho-social Care													3.76 (10)	4.19 (9)	7.59 (12)	11.72 (28)	8.86 (113)	+ 5.17
Specific Patient		5 (1)		13.98 (6)			5.26 (1)	7.69 (2)		11.11 (1)	5.25 (1)	7.69 (1)	15.04 (40)	16.77 (28)	16.45 (26)	17.57 (42)	15.08 (192)	+10.06
Age of Patient													2.26 (6)	3.59 (6)	1.90 (3)	1.25 (3)	0.78 (10)	- 1.48
Abilities/ Disabil-ities																	0.24 (3)	
Total % Distribution		20		20.93		23.08	15.79	19.23	11.76	11.11	15.79	30.77	23.31	27.54	28.47	35.14	28.77	+ 8.71%
Total Theme Counts		(4)		(9)		(6)	(3)	(5)	(2)	(1)	(3)	(4)	(61)	(44)	(44)	(84)	(190)	(+186)

CUBE DIMENSION CATEGORIES.

Observ./ Assess.							5.88 (1)		10.53 (2)		0.75 (2)	4.79 (8)			1.96 (25)	- 3.92
Blood Pressure															0.08 (1)	
T.P.R.											6.75 (2)				1.8 (23)	+ 1.05
Patients Progress			4.65 (2)			3.85 (1)	5.88 (1)	11.11 (1)	5.26 (1)	7.63 (1)	3.38 (9)	4.79 (8)	0.63 (1)	5.44 (13)	2.12 (27)	- 2.53
Comp- lications		10 (2)	2.32 (1)	7.69 (2)					5.26 (1)		5.26 (14)	0.60 (1)	1.90 (3)	0.84 (2)	1.25 (16)	- 8.75
Funct. Status	42.86 (3)	55 (11)	66.68 (4)	37.21 (16)	42.3 (11)	68.42 (13)	65.38 (17)	23.53 (4)	33.33 (3)	52.63 (10)	53.85 (7)	15.79 (42)	28.74 (48)	24.68 (39)	17.99 (43)	15.84 (202)	-27.02
Medic- ations											1.13 (3)				4.09 (52)	+ 2.96
Diet															0.08 (1)	
Patient Activity												0.60 (1)	1.90 (3)	0.84 (2)	0.94 (12)	+ 0.34
Weight																
Intake/ Output															2.43 (31)	
Treatments	57.14 (4)	10 (2)	16.67 (1)	11.63 (5)	3.85 (1)	15.79 (3)	17.65 (3)	11.11 (1)	5.26 (1)		5.64 (15)	8.98 (15)	3.16 (5)	2.51 (6)	5.88 (75)	-51.26
Specimens											2.26 (6)				0.24 (3)	- 2.20
Tests/ Procedures					23.08 (6)		11.76 (2)				2.63 (7)	5.38 (9)	0.68 (1)	1.67 (4)	2.98 (38)	-20.1
Artificial Drainage Methods														3.35 (8)	2.04 (26)	- 1.31
Artifical Intake Methods														6.28 (15)	2.9 (37)	- 3.38
Total % Distribution Total Therapy Counts	100 (7)	75 (15)	83.33 (5)	51.81 (24)	76.92 (30)	84.79 (16)	69.23 (18)	64.70 (11)	55.55 (5)	78.94 (15)	61.54 (8)	37.59 (100)	53.89 (90)	32.95 (52)	38.92 (93)	44.63 (569)	-55.37 (+562)

	Category of Patient Care	1903 T1 %	1908 T2 %	1911 T3 %	1915/16 T4 %	1921 T5 %	1925/26 T6 %	1931 T7 %	1936 T8 %	1941 T9 %	1946 T10 %	1951 T11 %	1956 T12 %	1961 T13 %	1966 T14 %	1971 T15 %	1976/77 T16 %	1981 T17 %	% Change Over 1 year
PROTECTION DIMENSION CATEGORIES.	Prof. Respons.													2.26 (6)	5.39 (9)	1.26 (2)	3.35 (8)	8.86 (113)	+ 6.23
	Precaut.				2.32 (1)					17.65 (3)				2.63 (7)	1.80 (3)	5.70 (9)	0.42 (1)	3.76 (48)	+ 1.44
	Total % Distribution Total Theme Counts				2.32 (1)					17.65 (3)				4.87 (13)	7.19 (12)	6.96 (11)	3.77 (9)	12.62 (161)	10.30 (+160)
TEACHING DIMENSION CATEGORIES.	Patient Partic.														0.60 (1)	3.16 (5)	1.25 (3)	0.24 (3)	- 0.36
	Health Educ.													9.40 (25)	2.39 (4)	14.55 (23)	3.35 (8)	2.35 (30)	- 7.05
	Total Distribution Total Theme Counts													9.40 (25)	2.99 (5)	17.71 (28)	4.6 (11)	2.59 (33)	- 6.81 (+ 8)

CO-ORDINATION DIMENSION CATEGORIES.	Int.Team				4.65 (2)									5.26 (14)	2.99 (5)	1.90 (3)	4.60 (11)	4.63 (59)	- 0.63
	Int.Nurses	!	5 (1)	16.67 (1)	16.28 (1)			11.54 (3)	5.88 (1)	33.33 (3)	5.26 (1)	7.69 (1)	19.17 (51)	4.19 (7)	11.39 (18)	12.13 (29)	5.49 (75)	+ 0.49
	Total % Distribution	!	5	16.67	20.93			1.54	5.88	33.33	5.26	7.69	24.43	7.18	13.29	16.73	10.11	+ 5.18
	Total Theme Counts		(1)	(1)	(3)			(1)	(1)	(3)	(1)	(1)	(65)	(112)	(21)	(40)	(139)	(128)
PATIENT ADVOCACY DIMENSION CATEGORIES.	Pt. pref Interests																		
	N/Pt. Int.												0.37 (1)	1.20 (2)	0.63 (1)	0.84 (2)	1.33 (17)	+ 0.96
	Total % Distribution												0.37	1.20	0.63	0.84	1.33	0.96
	Total Theme Counts												(1)	(2)	(1)	(2)	(17)	+ 16
	32 Categ.	(7)	(20)	(6)	(43)	(0)	(26)	(19)	(26)	(17)	(9)	(19)	(13)	(266)	(167)	(158)	(239)	(1275)	
AUXILIARY DIMENSION CATEGORIES.	A & P	(1)	(3)	(4)	(9)		(8)	(9)	(8)	(1)	(1)	(3)	(1)	(81)	(71)	(19)	(26)	(149)	(+148)
	Admin. Rel.																		
	Time				(1)						(1)		(1)	(13)	(6)	(8)	(17)	(56)	(+ 55)
	Location				(2)				(3)				(1)	(15)	(16)	(13)	(17)	(38)	(+ 36)
	Exam. Inst.	(3)	(6)	(1)	(10)		(4)	(6)	(7)	(4)	(1)	(8)	(2)	(120)	(66)	(37)	(50)	(133)	(+130)
	Total 36 Categories	(11)	(29)	(11)	(65)	(01)	(38)	(34)	(44)	(22)	(12)	(30)	(18)	(495)	(362)	(235)	(349)	(1651)	(+1640)

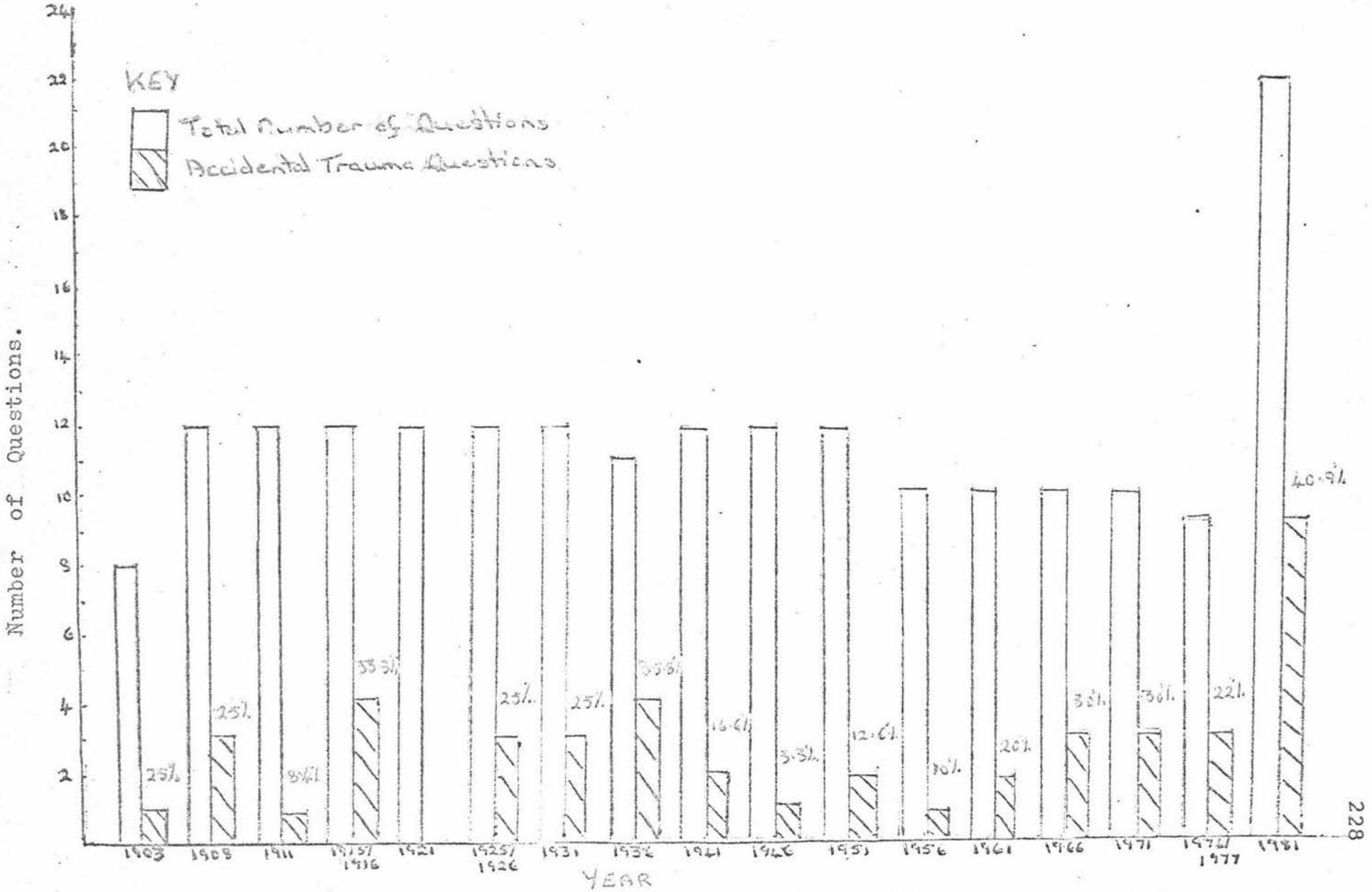


FIGURE 9.1: Number of questions relating to accidental trauma themes in relation to the total number of questions in each time period.

at a time when the number of car accidents was increasing (refer Appendix A).

Since 1946 there has been a demonstratable increase in the ratio of questions pertaining to the nursing care of patients suffering from accidental trauma in relation to the total number of questions (refer Figure 9.1). The ratio of 1.12 (1946) to 9.22 (1981) represents a percentage increase of 32.6%.

The increase in the ratio of questions relating to the nursing care of patients with accidental trauma parallels the increased visibility of accidental trauma due to the decline in infectious fevers from the middle of this century.

Use of Categories Across Time

Figure 9.2 shows that the actual number of categories used for the analysis rose from 4 in 1903 to the 34 required in 1981. The greatest single increase occurred in 1961 when the number rose dramatically from 9 in 1956 to 23 in 1961. Another substantial increase occurred in 1981 when the number rose from 23 in 1976/77 to 34 in 1981.

The major factor in these increases are undoubtedly the changes in format in the examination papers in 1957 and 1981 respectively. The change in format occurring in 1961 can be seen by considering the sample examination papers in Appendix G. In relation to the 1981 increase in categories required to count the themes it is reiterated that a section of 80 multichoice questions was incorporated in the 1981 examination paper. The effect of the 1957 curriculum revision is seen in the increased number of categories required to count the themes in 1961. In the 1981 time period the incorporation of the multichoice

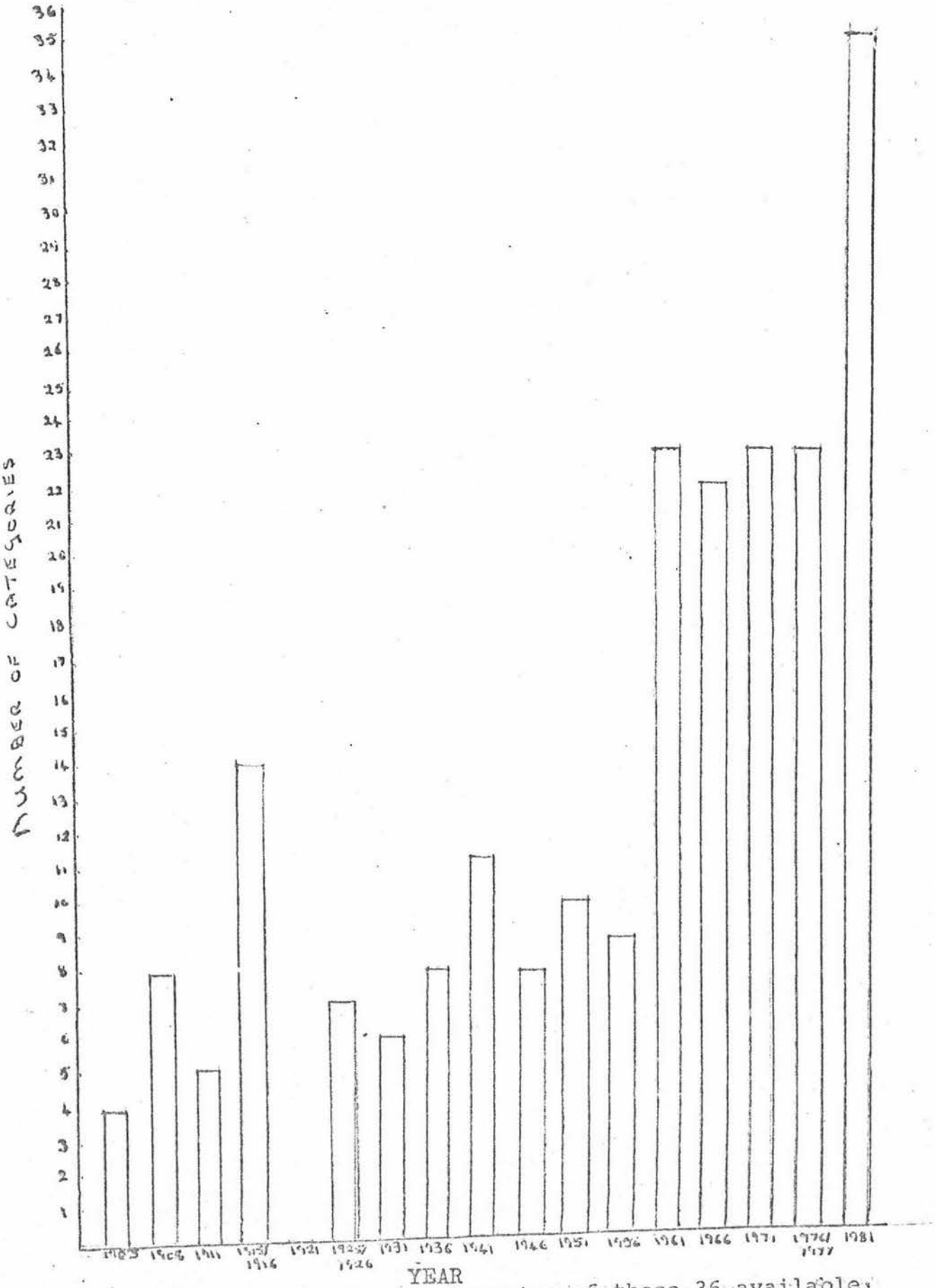


FIGURE 9.2: The number of categories of those 36 available, used to count the themes in accidental trauma questions.

questions may have affected the number of categories required. However the prime reason for the increase in categories no doubt relates to the increase in the number of questions relating to accidental trauma. As shown on Figure 9.1 the number of questions relating to accidental trauma rose from 3 (1976/77) to 9 (1981) or 22% to 40.9% when the questions are expressed as a percentage of the total number of questions in the examination papers in the 1976/77 and 1981 time periods.

Distribution of Themes

The greatly increased number of categories in 1961 and 1981 are linked with increases in the total theme counts per examination paper which rose from 18 (1956) to 485 (1961) and 349 (1976/77) to 1651 (1981). An explanation for the increase in the number of categories required to count the themes and the increase in total theme counts is found in the change in format in the examination papers in both time periods and the increased number of questions in 1981. Another factor in the 1961 time period is the 1957 curriculum revision which provided a broader base to the curriculum preparing nurses to practice nursing by the inclusion of psychology, geriatrics, and obstetric nursing and ward administration components; while also enlarging the community health component to enable nurses to render service in a much wider field.

The overall pattern shows that themes relating to the following categories occur in all time periods in which questions were found:

functional status;
anatomy and physiology; and
examination instructions.

Six other categories show theme counts in over half the time periods. They are:

treatments (14);
general nursing care (13);
interaction-nurse (13)
specific patient (12)
patient progress (11); and
complications (9)

These categories complete the list of the nine most frequently used categories.

At the other extreme are the six least frequently used categories;

patients preferences/interests (0);
weight (0);
sleep (1);
abilities/disabilities (1);
blood pressure (1); and
diet (1).

Of the remaining categories only seven categories are not constantly required to count the themes from 1961 onwards.

Results relating to each of the 32 patient care categories will be presented according to the dimension of nursing practice to which they are allocated (refer Table 9.1), to enable changes in elements constituting the six dimensions of nursing practice in this specific aspect of nursing to be identified over the years.

THE CARE DIMENSION

This dimension incorporates eight categories (refer Table 9.1). Table 9.1 shows the percentage distribution of theme

counts in each of the eight categories in the individual time periods. This table also indicates the percentage distribution of theme counts in the eight care categories contained in each time period and shows the change in percentage distribution over the years. There is a significant difference ($p < .05$) with a moderate effect ($rm = .63$) in the theme counts of the elements in the care category between 1908 and 1981.

The greatest single increase in the total percentage distribution occurs in 1956 when the total percentage distribution rose from 15.79% (1951) to 30.77% (1956). From 1961a gradual increase in the percentage distribution in the total care category dimension occurs until a peak of 35.11% (1976/77) is attained. In 1981 a slight decline is noted. These last two changes are similar to those reflected in the analysis of all examination papers. The reasons for these changes have already been explained (Refer Chapter Six)onthebasis of the changes in examination format in 1957 and 1981. It is interesting to note thata percentage distribution decrease occurs in 1981 in spite of the increase in questions relating to this specific aspect of nursing. The trends analysis of the material in the journal articles reveals that over the years the elements of the care dimension have remained constant.

The increased emphasis placed upon the categories of the care dimension following 1956 occurs slightly earlier than a similar trend in the journals. During the 1960's writers such as Orbell (1961), Ford (1963) and Mercer (1971) were discussing the value of Intensive Care Units for the nursing care of many of the victims of accidental trauma. These writers stress the importance of patients in such units receiving optimum care and attention (Mercer, 1971).

Consideration of the individual categories in this dimension reveals that the categories of general nursing care (13) and references to a specific patient (12) are the two most frequently required. Psychosocial care and age are both consistently used from 1961. At the other extreme are the three least frequently used categories of sleep (1), abilities/disabilities, and pain (2). In 1981 all eight categories in the care dimension of nursing practice are required to count the themes.

In light of the references to pain in accidental trauma and the need for sleep, the lack of themes in these two categories is noteworthy. References to the psychosocial aspects of nursing practice in accidental trauma questions do not occur prior to 1961. Its increasing importance together with references to specific patients is noted from that time. The decline in importance seen in theme counts in the category of general nursing care with a percentage distribution change from 15% (1908) to 0.86% (1981) can be explained to some degree by the concomitant increase in the percentage distribution of themes in the category of psychosocial care (refer Chapter 8 p.180).

The overall pattern of findings from the analysis of questions in the examination papers reveals a similar trend to the general analysis data. Although nursing practice has remained constant in relation to some elements associated with the care dimension over the years, an increasing importance has been placed upon the elements in this dimension from 1956.

This rise in the "care" aspects of accidental trauma parallels the rise recorded in this dimension in Chapter Eight.

THE CURE DIMENSION

Table 9.1 shows that over the sixteen time periods in which questions relating to accidental trauma are found the importance placed upon the 16 categories in this dimension has fluctuated. A decrease occurs in the percentage distribution from 100% (1903) to 44.63% (1981). The greatest single decreases occurred in 1908 and 1961 when the total percentage distribution declined from 100% (1903) to 15% (1908) and 61.54% (1956) to 57.59% (1961). From 1971 an increase in the percentage distribution of theme counts is apparent in the remaining time periods. The fact that this period when the "care" categories attain their highest percentage distribution in the 1976/77 time period is of note. The increase in the "cure" category theme counts in 1981 parallels the decreases in the "care" categories. The change in format in the 1981 examination paper is the probable explanation for this trend.

The continued emphasis placed upon the "cure" elements in the first half of this century is a trend also noted in the journal article analysis. Consideration of the individual categories in this dimension reveals that as in the general analysis the categories of functional status and treatments are the most frequently used categories, together with patient progress (11) and the category of complications (9). At the other extreme the nine least frequently used categories are;

weight (0);
patient activity (1);
blood pressure (1);
intake and output (1);
t.p.r. (2);
medications (2);
specimens (2);
artificial intake methods (2); and
artificial drainage methods (2).

In 1981 it is noted that all categories with the exception of the category of weight are required to count the themes.

The constant importance of the functional status over the years is of particular note.

The analysis of examination data reveals the relative constancy of theme counts in the treatment category, although a decline is noted from 1951 onwards. Table 8.2 indicates the trends in journal articles relating to specific treatments. The number of times the category of tests and procedures was used to count the themes contrasts with the general examination analysis. In this aspect of nursing this category is only required consistently to count the themes from 1961. Although the journal articles contain references to this category over the years they are more frequently mentioned in the articles from 1961.

Themes in the category of patient progress occur in all examination questions from 1936 to 1981, indicating the increasing importance placed upon patient progress. There are also frequent references to this theme in the journals, especially from the 1950's when case studies on specific conditions are published in the journals[1] (refer Appendix F). Authors constantly stress the importance of observing the patient to assess his progress and to detect any progress or complications that may arise. Fryatt (1981) comments on the need to regularly record the vital signs of a young child with burns in order to provide a method of progress assessment.

From 1961 references to patients' complications become much more frequent in the examination questions. Theme counts in this category also occur in four previous time periods. In the literature review constant references are found over the years to the problem of complications

1) Case studies are considered to constitute a valuable part of a students educational programme.

especially, the need to recognise and treat the complication of shock. In the early examination answers frequent references are made to the signs and symptoms of shock. Other complications most often referred to are the infection of wounds, pressure area sores and the complications associated with head injuries.

Few references are found in the examination data to observations/assessments; blood pressure; and temperature, pulse and respiration (also, refer Chapter 8, p.186). This is in direct contrast to the material in the journal articles which contains frequent references to the importance of accurately recording the vital signs. Graham (1936) believed that "systematic observation...may stand between the patient and death" (p.140). The lack of theme counts in the categories relating to the vital signs, although surprising, can be explained on the basis that references to them are more likely to appear in examination answers than in the examination questions. Observations continue to be an essential element of nursing practice according to the journal articles over the years, and Orbell (1962); Ford (1968); and Gardiner (1978) are three authors who comment upon the use of electronic monitoring equipment to record the vital signs and augment the nurses' observational skills. The emphasis upon observation skills is not limited to vital signs but extends to the need to observe a patient for wound ooze, paralysis and watch colour, warmth and movement in injured limbs. It enlarges in later years (from the 1970's onwards) to the need to carry out nursing assessments in order to meet the individual needs of each patient. Thus the importance of assessment of functional status to nursing practice is evident.

An examination of Table 9.1 shows few theme counts relating to specific treatments, such as special diets, patient activity, or to intake and output. Yet by 1981 all these categories, with the exception of weight, were used to

record themes. From 1966 themes in the category of patient activity constantly recur. This can be related to the increasing number of examination questions pertaining to the care of patients with fractures during this period (1966-81). The paucity of theme counts in the other categories relating to specific aspects of treatment is in direct contrast to the number of references found to them in the literature review. In the case studies related to accidental trauma printed in the journals from the 1930's, references are constantly made to medications, diet, intake and output. From the 1950's, references to patient activity can be added to this list. Only references to weight are hard to find.

A similar situation exists in relation to references to artificial intake and artificial output methods. Themes relating to these are found only in the last two time periods (1976/77 and 1981). Both these activities are frequently referred to in the case studies relating to the nursing of patients with accidental trauma.

THE PROTECTION DIMENSION

Table 9.1 shows that up until 1961 when constancy was attained in both categories, this dimension was only required in two previous time periods. It is of note that of these time periods both occurred during the war years 1915/16 and 1941.

Consideration of theme counts in the category of professional responsibilities shows that prior to 1961 when constancy in theme counts was attained, no themes are found in this category. When this factor is considered in light of the journal anlaysis it is evident that although individual references to this category occur from the 1940's the frequency of references increases from the 1960's as a rise in the importance placed upon

professional responsibilities and to medico legal aspects of nursing occurs.

In the precaution category theme counts are evident during the time periods of 1915/16 and 1941 (during both world wars) and constancy is attained from 1961. From 1908 references are found in the journals to activities of the precaution category. These early references which first appear in 1908 refer to the need to turn patients and to carry out pressure area care to prevent bedsores, the need to provide warmth and other measures to prevent shock, and particularly during the war, references often relate to the importance of asepsis and antiseptic to prevent wound infections. From the 1960's there is an increase in the references alluding to the importance of preventing complications in relation to specific conditions documented in the case studies, and many articles discuss the concept of accident prevention in a variety of health care settings (refer Table 8.3). The increased visibility of references to this category relates directly to the increasing prominence of accidental trauma due to the decline in infectious fevers. The increase in journal references parallels the consistency and increase in percentage distribution evident in the examination analysis.

THE TEACHING DIMENSION

Two categories are incorporated in this dimension. Prior to attaining constancy in 1961 neither category is required to count the themes. An explanation for the increased recognition of these two categories is to be found partly as a result of the 1957 curriculum review and other subsequent reviews. It can also be attributed to the increased visibility of patients suffering from accidental trauma.

The trends in the analysis of journal articles indicate that only isolated references to the importance of health education are found from 1915, until 1960. From the 1960's references to the importance of health education increase considerably. Therefore both data sources show a similar trend in relation to health education and accidental trauma.

Consideration of the findings in the examination analysis relating to patient participation indicates that this category is constantly required to count themes from 1966 onwards. The trends in journal articles reveal that references to this aspect of nursing practice increase during the 1960's. These articles stress the need for people to be included in the education process in order to enable them to prevent accidents or learn to live with their disabilities.

THE CO-ORDINATION DIMENSION

Two categories are incorporated in this dimension as Table 9.1 shows. An examination of Table 9.1 reveals the relative constancy of theme counts in the interaction/nurse category (13) with this category being consistently required to count the themes from 1936 onwards. An examination of the references in the journal articles reveals several early references to activities relating to interaction/nurse especially in letters written by nurses at the "front" in both world wars. From the 1960's the frequency of references to the need to co-ordinate nursing staff in special units caring for patients suffering from accidental trauma increases. The examination analysis shows that emphasis on this element of the co-ordination dimension occurs at an earlier date than the journal articles.

Consideration of the second category of interaction team in the Table 9.1 shows that apart from the isolated reference in 1915/16 this category was not required to count the themes again until 1961 from which time it attained constancy. References to the interaction between team members became more frequent from the 1940's although references do occur during the first world war. Following the end of the second world war references to this activity continue as the "team concept" became transferred into the civilian health care system, and the number of personnel involved in caring for the patient increased. The results of the examination analysis are therefore substantiated in the journal analysis.

THE PATIENT ADVOCACY DIMENSION

Although two categories are included in this dimension (refer Table 9.1) only the category of nurse/patient interaction has ever been required to count the themes in this dimension. Theme counts constantly appear from 1961 onwards, as the results of the analysis relating to the dimension of nursing practice shown on Table 9.1 reveals. Consideration of the literature in relation to this category reveals that from 1930 references to the category are apparent, with a rise of frequency in the 1960's.

Some of the impetus over the years for the increasing importance of the nurse/patient interaction theme comes from the recognition that with the increased number of people caring for the patient, the patient needs one person who could talk "for them" and "to them". The nurse, because she is with the patient 24 hours a day, becomes the person to assume this role. The constancy of theme counts in this category since 1961 is also seen in the 1966 and 1977 curriculum revisions which emphasised a more humanistic

interactional approach in nursing practice. Furthermore, together with the change in focus from task to patient assignment in nursing, and the inclusion of psychology in the 1957 curriculum, nursing practice has also been responsible for the increasing importance placed upon this category in the patient advocacy dimension in recent years.

SUMMARY

The trend analysis data elicited from the examination questions relating to accidental trauma (refer Figure 9.1 and Table 9.1) shows that over the 16 time periods investigated in this study (1921 omitted as no question in this time period relates to accidental trauma) the actual number of patient care categories required to count the themes increased from 2 (1963) to 30 (1981). The greatly increased number of categories is linked with a significant increase in the total number of theme counts from 7 (1903) to 1275 (1981) ($p < .01$ rm .50). An examination of Table 9.1 reveals that the increase in the number of theme counts is apparent in all six dimensions of nursing practice.

The greatest single increase in both categories and theme counts occurred in 1961 when the number of categories rose from 5 (1956) to 19 (1961) and the total theme counts from 13 (1956) to 266 (1961). Application of the Mann-Whitney U Test in the 1956 and 1961 time period to the nine categories used to count the themes in over half the time periods (refer p. 77) reveals a highly significant change ($p < 0.001$ with a large effect (rm .71). Another significant increase in patient care categories and theme counts occur in 1981. Categories increase from 19 (1976/77) to 30 (1981) and theme counts rise from 230 (1976/77) to 1275 (1981) ($p < 0.65$ rm .58). Consideration of the data

on Table 9.1 indicates that over the years both constancy and difference are evident in the elements comprising the six dimensions of nursing practice. The patient care category - functional status - has been required consistently to count the themes in all time periods. This category is found in the cure dimension of nursing practice.

Seven of the total 32 patient care categories are required to count the themes in over half the 16 time periods (refer Table 9.1). These seven categories are found in the three dimensions of care, cure and co-ordination. From 1961 15 of the total 32 categories are required consistently to count the themes and in contrast to the earlier time periods at least one category is found in each of the six dimensions of nursing practice. Also from this time the cure dimension categories are not as predominant as in earlier times (refer Table 9.1).

The changes occurring in 1961 and 1981 as noted earlier can be attributed to the change in format of the examination paper. Also the 1961 change reflects the effect of the 1957 curriculum change and in 1981 the increase in the number of questions relating to accidental trauma effects the findings. Consideration of the trends identified in the journals substantiate these findings for although prior to this time references to all six dimensions of nursing practice are found in the journal articles, from the 1960's increasing emphasis in the journals is placed on the five dimensions of care, protection, teaching co-ordination and patient advocacy.

As already stated consistency and difference are apparent in the categories relating to each dimension of nursing practice. However, as Table 9.1 shows one of the most obvious changes occurs in relation to the percentage distributions of the care and cure categories. Figure 9.2 indicates the fluctuations occuring in these dimensions

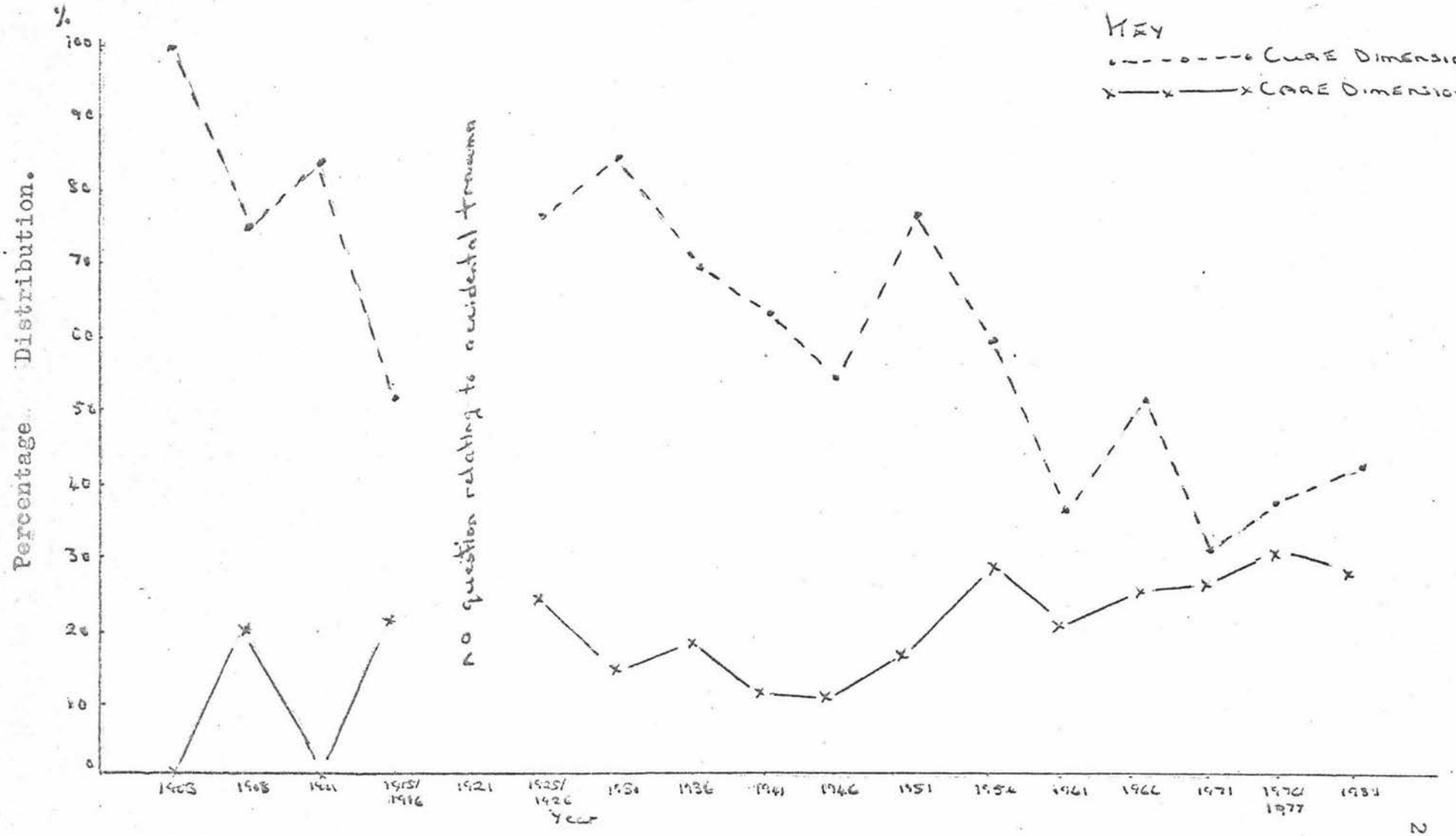


FIGURE 9.3: Care-Cure Dimension Dichotomy in each Time Period

over the years. A rise in the theme counts and percentage distributions in one dimension frequently results in a corresponding decrease in the other dimension. From 1961 with the exception of 1981, the trend has been noticeably toward an increase in the emphasis placed upon the categories in the care dimension with fluctuations in emphasis apparent in relation to the cure dimension categories. The increasing emphasis placed upon the care dimension from 1961 is paralleled by the increase in the frequency of journal articles relating to elements of the care dimension around this time.

SECTION 5

In this section conclusions drawn from the findings in this study are presented; their implications for nursing considered and recommendations for further study are suggested.

Chapter Ten: Nursing: An overview of Implications of the Study and Recommendations for the Future.

CHAPTER TEN

NURSING: AN OVERVIEW OF IMPLICATIONS OF THE STUDY AND RECOMMENDATIONS FOR THE FUTURE

This study set out to examine the developments in the dimensions of nursing practice and their associated elements. Over the years the increasing complexity and specialisation that has occurred in nursing has made it imperative for the dimensions of nursing practice with their associated elements to be clearly identified and understood. Nurse educators need to gain a thorough understanding of the dimensions and composition of nursing practice if they are to plan curricula which will ensure the best possible learning experiences in the cognitive affective and psychomotor areas of nursing practice. As stated on page 1 of this thesis, the search for the elements of nursing practice was first clearly identified by Nightingale (1859) who stated:

> It has been written scores of times that every woman makes a good nurse, I believe on the contrary that the very elements of nursing are all but unknown. (p.2).

In order to examine the dimensions and elements of nursing practice the N.E.E.P. intersystems model (refer p.54) has been developed and operationalised. In this model the examination connective system is seen as the vital connective link between the two system components of nursing education and nursing practice. The nine functional components of this model (6 dimensions of nursing practice and 3 dimensions of nursing education) are used in this study to provide direction for the collection and collation of data elicited from the examination analysis and the material derived from journal articles.

The following propositions were derived from the review of literature presented in the first three chapters of this study.

1. That the six dimensions of nursing practice (care, cure, protection, teaching, co-ordination and patient advocacy) will remain constant over time and with different practice settings.

2. That the elements of each dimension will vary with time and with the practice setting.

CONCLUSIONS

The conclusions presented in this chapter are derived from the findings presented in the five investigative chapters in Sections 3 and 4 of this study. As the propositions in this study are expressed only in terms of the nurse practice system (c) of the N.E.E.P. model the nurse practice system will be used to present the conclusions in relation to these propositions.

NURSE PRACTICE SYSTEM

Three of the six dimensions of nursing practice (care, cure and co-ordination) occur in all the 17 time periods investigated. Table 7.1 shows that although the themes (elements) making up these dimensions change in nature and percentage distribution over the 17 time periods the dimensions remain constant. The same three dimensions of nursing practice occur in at leat 81% of the time periods investigated in relation to the questions in the examination papers pertaining to accidental trauma.

Therefore the "heart" of nursing can be said to be made up of these three dimensions of nursing practice which are defined by Du Gas (1977) in the following terms.

1. The "Care Dimension"
   A nurse cares for and about the patient

2. The "Cure Dimension"
   Nurses participate in the detection and treatment of disease

3. The "Co-ordination dimension"
   Nurses co-ordinate activities of other health team members.

Although fluctuations occur in the importance placed upon these dimensions over the years, from 1961 increasing emphasis is found in all the dimensions except the cure dimension. where a declining trend is demonstrated (refer Tables 7.1, & 9.1). Examination of the findings relating to the care dimension reveals that although this dimension is apparent in all time periods in the first half of the century it is overshadowed by the activities relating to the cure dimension. Consideration of Table 7.1 shows that from 1961 this trend is reversed. Therefore there is evidence to show that although nurses allowed the highly technical cure activities to erode the caring elements for a time as De Young (1980) states today nurses are now returning to them as the practice of nursing becomes more clearly into focus. As shown in Chapter 1 p. 19 of this study the nurses primary one is a caring one and her secondary role is curing. From observation the author considers that the reverse occurs in relation to the doctors.

The movement towards a caring orientation in the examination papers is seen to result mainly from the change in format of the examination papers and the impact of the 1957

curriculum revision. The effect of the curriculum revision upon the caring orientation is of particular importance.

An examination of Table 7.1 shows the great importance placed upon the cure dimension by nurses over the years, especially in the first half of this century. During this time, rapid advances in medical science and technology led to an increase in nursing functions in relation to this dimension. These factors together with a rapid expansion of medical knowledge, led to many changes in nursing care and resulted in an increasing emphasis being placed by nurses upon some aspects of disease management. As medicine grew more complex and specialised nurses were delegated many of the tasks previously carried out by doctors. As a consequence nursing became "disease" or "procedure" orientated. This factor is especially evident in the 1920's to 1950's. The overwhelming of the care dimension by the cure elements is the subject of discussion in many journal articles over these years and evidence of this emphasis is found in both in Table 7.1 and 9.1. From 1960 as already noted a reversal of this trend began. As Donnelly et al (1980) suggest nurses are learning to incorporate the cure activities into the caring role.

The third dimension to remain constant over the years is that of co-ordination. Nurses have always worked as a team in providing care for the patients and over the years this team has increased to include a variety of other health care workers and auxiliary personnel. Because the nurse is with the patient 24 hours a day she has the responsibility to co-ordinate the activities related to patient care.

From 1911 a study of the examination data reveals an increasing emphasis being placed upon two other nursing practice dimensions - protection and teaching. The former occurs in at least 86% of the time periods investigated from this date while the later is found in at least 67% of the time periods. According to Du Gas (1977) the protection

dimension involves the nurse in protecting the patient from adverse environmental conditions that could cause illness or injury while the teaching dimension involves nurses in giving advise and teaching on health matters.

The importance placed upon the protection dimension increases during the two world wars as a study of tables 7.1 and 9.1 shows. From 1911 omissions occur only in 2 time periods (1936 and 1951) in this dimension in the general examination analysis and from 1961 references to this dimension occur in all time periods in both the general and the accidental trauma examination analysis. The increasing importance of this dimension may be related to the fact that with the increase in medical knowledge came the discovery of how to prevent many diseases. In the 1960s the decline in infectious fevers brought into prominence the chronic and life style diseases and it was soon realised that many of these conditions were able to be prevented. In recent years there has also been increased emphasis placed upon professional responsibilities in relation to medico-legal activities.

This rise in prominence of chronic and lifestyle diseases has emphasised the importance of the teaching dimension of nursing practice together with the realisation of the importance of patient participation in the maintenance of health. An examination of Tables 7.1 and 9.1 shows that growth in importance of these dimensions occurs from the 1960s. As stated in Chapter 2 of this study (p. 26) Nightingale's ecological orientation of nearly 150 years ago, stressed the relationship between physical disease in the environment and health and she also acknowledged the importance of the teaching activities in nursing.

The sixth dimension of nursing practice - patient advocacy as Tables 7.1 and 9.1 show did not become important in nursing practice until the 1960s. From 1961 this dimension

is considered of importance. The importance of this dimension is associated with the emergence of a more humanistic interactional approach to nursing care (as the journals substantiate) became emphasised in the late 1960s and the 1970s. The patient advocacy dimension as defined by Du Gas (1977) involves nurses acting as advocates and spokesman for patients. Other factors related to this rise in importance of this dimension are the patients rights movement and the fact that the increase in personnel caring for each patient led to the realisation that the patient needed someone who could speak on his behalf and explain and interpret health care measures.

Therefore although for the purpose of this thesis the six dimensions of nursing practice were considered to remain constant in all nurse practice settings and over time this study has shown that according to the examination analysis only three of the dimensions of nursing practice - care, cure and co-ordination - do in fact remain constant over time and in different practice settings although by 1961 constancy is demonstrated in all six dimensions of nursing practice. This trend in the findings of the examination analysis is not fully substantiated in the historical trends identified in the journals for from 1908 to 1981 references to all six stated dimensions are apparent. However an increase in the frequency of themes relating to the care co-ordination, protection, teaching and patient advocacy dimensions from 1961, corresponds with the attainment of cosntancy in these dimensions in the examination analysis. Journal articles also document the care-cure developments over the century.

ELEMENTS OF NURSING PRACTICE CONSTANCY AND DIFFERENCES

In the previous section it has been demonstrated that four of the six dimensions occur in at least 76% of the time periods investigated. Three of these (care, cure and

co-ordination) appear in all the time periods. These three dimensions account for 81% of the elements (categories) being studied in this thesis. However, on inspection of Table 7.1 shows that although the three dimensions remain constant, the elements making up these dimensions shows a considerable amount of change. For example, the element related to nursing comment on patient activity does not appear as a stated theme in the examination papers until 1966.

This trend is even more marked in the three other dimensions (teaching, protection and patient advocacy) in which elements regularly appear only after the change in examination format apparent in the 1961 examination questions.

The elements that appear in each time period are:

general nursing care;
reference to specific patients;
functional status;
tests and procedures;
treatments;
nurse interactions.

Five of these elements are also constant in over 75% of the five periods for the accidental trauma setting.

These are:

general nursing care;
reference to a specific patient;
functional status;
treatments

and the elements of nurse interactions.

The fact that nursing has always had a caring aspect is seen by the constant importance placed upon the element of general nursing care. Over the years references to

this element have always been in the examination papers. It is evident that the increased specialisation occurring in nursing throughout this century has resulted in many nurses referring more frequently to the more specific physical or psychosocial elements of nursing practice. This has resulted in a decline in emphasis placed upon this element in recent years (refer Table 7.1).

Evidence in the examination papers is also found to show that over the years nurses have considered patients as individuals as the constant references to specific patients reveals. This factor is of particular interest in light of the material derived from the journal which stresses the need to consider patients as individuals and not just cases. Following the move in recent years towards the more patient-centred nursing care and the increasing emphasis placed upon the interactional humanistic approach to nursing the importance of this element has increased (refer Table 7.1 and Table 9.1). Articles in the journal reflect the importance placed upon patient centred nursing care since the 1970's together with the emphasis upon the importance of nursing the 'total' patient.

The continual emphasis placed upon the element of treatments is evident from a study of the examination analysis (refer Table 7.1 and Table 9.1). This element of nursing practice has been affected by many changes in treatment over the years yet the constancy of this element remains very apparent, particularly in the first half of this century.

Throughout this century there has also been a continual emphasis placed upon the element of functional status (refer Table 7.1 and Table 9.1). This element of nursing practice which incorporates factors such as references to the signs and symptoms manifested by the patient; diagnosis; and prognosis has consistently been one of the most important elements in nursing practice. In the general examination analysis in 12 out of the 17 time periods (70%) and in

13 out of the 16 time periods (80%) investigated in the accidental trauma analysis it is the most frequently referred to element of nursing practice.

Nurses have constantly seen nursing as a 'team' activity, as the constancy of the element of nursing practice relating to nurse interaction shows. The fact that nurses in the early years used to "learn on the job" together with the development of the hierarchial structure and the procedure centred type of nursing practice, increased the need for communication between nursing personnel. Nurses needed to communicate to delegate tasks, supervise activities of patient care; or to give or receive information relating to a patient's care.

Therefore although the relative percentage distribution and theme counts may change over the years, from the beginning of this study evidence that nurse practitioners have always considered these elements of nursing practice important is apparent. This evidence is found not only in the constant inclusion of these elements in the examination data but is also substantiated by the references in journal articles. These five elements of nursing practice can therefore be said to constitute the "core" elements of nursing practice.

Consideration of Table 7.1 and Table 9.1, demonstrates that over the years the 32 elements of nursing practice (investigated in this study) have shown both constancy and difference. One element in the patient advocacy dimension-patient preferences/interests was never required to count the themes. Table 7.1 shows that from 1961 to 1981 twenty two of the thirty two elements investigated in this study constantly contain theme counts as opposed to the five elements apparent in each category from 1903.

NURSING EDUCATION SYSTEM

A second component of the N.E.E.P. Intersystems model is the nursing education system (refer p. 38). This system incorporates the three dimensions of knowledge, attitudes and skills. According to Parkinson (1978) nursing education is concerned with each of these three domains (p.14). Therefore each of these three dimensions should be incorporated into the nursing curricula. A study of the educative material in the journal articles together with a consideration of the elements[1] of nursing practice included in the examination papers shows that over the years changes have occurred in nursing curricula. The primary objective of all basic nursing programmes is to prepare nurses to meet the current and future challenges of nursing so from the turn of the century ways of meeting and keeping up with the changing requirements for nursing practice has been a continual challenge for nurse educators.

Knowledge; Attitudes and Skills

In the early years of this century nursing education was organised around the three Nightingale points of:

(1) technical skills
(2) environmental control and hygiene and
(3) a philosophy of nursing and a code of ethics. During the first half of this century increasing emphasis was placed on diseases and technical procedures. Thus nursing began to emphasise the cure activities, which according to some journal articles was to the detriment of the care activities. The 1932, 1938 and 1946 curriculum revisions were to perpetuate this medical orientation.

---

1. It is reiterated that in this study it is argued that the elements that comprise the content of a nursing curricula must be the same elements that constitute nursing practice.

The 1957 curriculum revision was to begin the reversal of this trend. The important effect of this curriculum revision which provided future nursing practioners with a broad base from which to begin to practice nursing is reflected in the examination analysis. Curricula was reorganised around a body systems approach.

By including psychology, obstetrics geriatrics and a management component in this curricula revision, and increasing the hours allocated to public health nursing, this curricula provided nurses with a programme designed to meet a patients 'total' needs. In particular it provided impetus for the movement towards the re-emergence of the care activities in relation to the cure activities, and emphasised the importance of the health promotion and illness prevention concepts in nursing. The effect of this curriculum revision together with the change in examination format in 1957 is first evident in the 1961 time period of the examination analysis. In 1961 the number of patient care categories required to count the themes rose from 11 (1956) to 27 (1961). Linked with the increase in the number of categories required to count the themes is a significant increase in the number of theme counts ($p < .001$ rm $.=71$)

Subsequent curriculum revisions in 1966 and 1977 were to also extend the base of the curricula content and to further develop the trend towards the re-emergence of the cure aspects of nursing and to advance the health promotion and illness prevention concepts. In the 1966 curriculum revision (refer appendix G) a humanistic approach is becoming more evident, and this is further developed in the 1977 curriculum revision, which enables a patient-centred curriculum to be evolved. Longway (1972) identified similar changes in her study of planned curriculum content from the Nightingale era to the present day in North America (refer Chapter Three p. 41).

EXAMINATION CONNECTIVE SYSTEM

In the N.E.E.P. intersystems model the examination connective system (refer p.54) is seen as the vital connecting link between nursing education and nursing practice. As a result of this study evidence to support the use of this system as the "connective link" between two systems is established. Consideration of the effect of the 1957 curriculum revision upon the examination analysis findings in the 1961 time period shows support for this idea. A study of the content of the examination papers over the years provides an idea of which elements and dimensions of nursing practice, those who set the examination papers considered important content for our future nurse practitioners to know, if they are to be considered 'fit' to practice nursing.

Over the years changes in the format in the examination paper - 1957 and again in 1981 - can be seen to have altered the distribution and number of theme counts. The 1957 change in format which was reflected in this study in 1961 had a marked effect upon the number of categories required to count the themes and the overall number of theme counts. (Refer Table 6.1 and Table 9.1).

COMMENT ON THE STUDY

The New Zealand Nursing Journal

The analysis of the New Zealand Nursing Journal articles from 1908 - 1981 revealed that over the years the emphasis upon different aspects of nursing practice in both the national and international scene has declined. In recent years the articles written by well known nurse leaders (both in New Zealand and overseas) have similarly declined. In short the journals now contain fewer statements on nursing from nurse leaders in New Zealand or overseas. A change

in emphasis has therefore occurred in the journal material in recent years.

Historical Research

The lack of complete historical records on nursing in New Zealand together with the difficulty in locating relevant historical data is of concern to the author. It is realised that moves are now being made by several organisations related to nursing; such as the Nursing Council and the New Zealand Nurses Association and individuals like Gibson - Smith with the development of the New Zealand Nursing Journal index; to remedy the situation to some extent. Sadly however much important data relating to the development of nursing in this country may be lost to us already.

Limitations of this study

By deciding to analyse only one of the three papers comprising the State Examinations (the surgical paper), the author did not consider trends occurring in the other two papers. As papers were analysed at five yearly intervals what actually occurred in relation to the dimensions and their associated elements in the interim was beyond the scope of this thesis. No attempt was made in this study to determine the effect that the changes in the composition of the committee responsible for setting the examination papers had upon the content of these papers. A content analysis carried out on two medical papers set at the same time as two of the surgical papers (refer Appendix B) shows that the content in the medical papers while corresponding in some respects to the surgical papers content also differs in several aspects.

Critisicms of This Study

A major criticism of this study the author believes relates to the need to review all journal articles from 1908 to 1981. A review of articles relating only to surgical nursing at five yearly intervals may have enabled a more accurate crosscheck of both data sources to be carried out. However, due to lack of sufficient material in some of the journals the author considered that the only way to accurately identify the trends occurring in the journals was to carry out an overall review. This data was then cross checked with the general data elicited from the surgical examination papers. This fact may to some extent account for some of the discrepancies occurring between the two data sources prior to 1961. But the identification of some articles in the journals which comment about the need for changes in education; (for example about the need for the inclusion of psychology in the nursing curricula, to enable nurse to provide effective patient care) serves to negate this critiscm to some degree.

In order to avoid being criticised for carrying out a selective review of the journal articles the author implemented a cross check of the two data sources to substantiate the findings relating to one data source with the other.

IMPLICATIONS

Several implications of importance to nursing arise as a consequence of the findings of this study. Over the years the dimensions of care, cure, and co-ordination have consistently been an important part of nursing practice. These dimensions can be said to form the "heart" of nursing practice. This factor has implications for both nurse educators who prepare our future nurse practitioners

and nurses in the practice setting, for the importance of these dimensions over time and their relevance to different aspects of nursing practice are apparent. In times when increasing specialisation and complexity are occurring in nursing a knowledge of the important aspects of nursing practice is essential.

Over the years much has been said about the care - cure dichotomy but not so much about the nurses co-ordination activities of nursing. The fact that nursing has always had an expressive caring component is apparent from the studys findings and this caring role is one of the factors that makes nursing practice so unique. For other health care personnel treat the patient and care about them, but nurses also care for them. The care functions form a major part of the nurses role.

Nursing has changed over time to meet the needs of society and individuals by incorporating into their role the dimensions of teaching and protection and in later years patient advocacy. Yet throughout the years the importance of the three dimensions of care, cure and co-ordination have remained constant. The constancy of these dimensions has occurred even though both constancy and difference are apparent in the elements of nursing practice which constitute these dimensions. Thus nursing has changed very little in respect to some activities while others have been affected by social, technological or environmental change. Therefore nurses must be taught to be adaptable for nursing must alter to meet the needs of society if the profession is to survive.

As the amount of knowledge needed by nurses to attain and maintain their competency increases it becomes even more difficult for nurses to decide how to organise nursing curriculum content and to make the decision about what content should or should not be incorporated into a nurse

education programme. The constancy of the care, cure and co-ordination dimensions over the years provides a good basis for the establishment of a framework for both nursing education and nursing practice.

In this study the importance of the examination system of nursing education as the connective link between nursing education and nursing practice is shown. The 1957 curriculum revision particulary supports this point. Over the years the content of the examination papers has changed to reflect what nurse practitioners consider to be important issues in nursing at the time. These changes help to increase the relevance of nursing education to nursing practice.

RECOMMENDATIONS

As a consequence of this study several recommendations for future studies arise. Because a knowledge and understanding of the history of nursing is important for nurses to help them to understand the present, and due to the paucity of historical research in relation to nursing in this country, studies utilising a similar historical approach are recommended.

An examination of the trends in the other two papers comprising the State Final Examination Paper would be helpful in ascertaining the constancy and difference occurring in the stated dimensions of nursing practice and their associated elements. A study of all the Surgical State Final Papers over the years would indicate constancy or differences occurring between the five yearly time periods used in this study. Further examination of content in the New Zealand Nursing Journal articles would be extremely valuable as it would seem to augment the material relating to the history of nursing in New Zealand.

APPENDICES

APPENDIX A

Data Relating to Accidental Trauma in New Zealand

APPENDIX A1 - Deaths due to accidents in New Zealand

APPENDIX A2 - Discharge: Deaths for patients hospitalised as a result of an accident

TABLE A:1 DEATHS DUE TO ACCIDENTS IN NEW ZEALAND

Contributing Cause	Year 1901	1911	1921	1931	1941	1951	1961	1971	1981
Fractures Contusions	191	41	41	16	3				
Accidental falls		22	49	98	131	139	282	454	
Motor vehicle acc		99	142	135	175	269	405	674	
Other transport				49	115	115	34	42	
Burns	54	69	39	34	33	19	33	28	
Scalds, radiation						17	13	7	
Drowning Submersion	142	162	130	126	105	90	126	135	
Suffocation Asphyxia	24	8	10		12				
Poisoning	9	17	14	27	7	29	36	41	
Conflagation			17	11	15				
Gunshot	17	18	19	23	16	22	15	17	
Electrocution		3							
Lightning			2						
Heat	1	2							
Cold			2						
Starvation		3							
Overexertion			5						
Animal Injuries		26	10	3					
Bites & stings									
Vaccine reaction									
Industrial acc.		14	9			19	37	44	
Cuts	7	3	4						
Stabs									
Crushing			173	315	290				
Accidental (medical)		19	10	11					
Surgical Proecedures									
Mines-Quarries		25	6	12	13				
Others	40	50	38	54	79		161	118	
Homicides Murder	11	9	15	13	15	14	26	25	
TOTAL	494	590	577	926	719 +86	549 +90	1168	1585	
						29 60 Others			
% ACCIDENTAL DEATHS PER 10,000 PEOPLE	6.35%	5.81%	4.71%	6.41%	3%	4%	5%	6%	

No Maori figures included until 1961. 1941 and 1951 Maori figures added below

Source: New Zealand Official Year Books: 1902; 1912; 1922; 1932; 1942; 1952; 1962; and 1972.

TABLE A.2: DISCHARGE: DEATHS FOR PATIENTS HOSPITALISED AS A RESULT OF AN ACCIDENT

Type of Accident	Year								
	1901	1911	1921	1931	1941	1951	1961	1971	1981
Fractures Contusions	1305		2255	3905	5952	8372			
Accidental falls	388		1				7681	11480	
Motor vehicle other accidents	97						12996	21607	
Burns	117		269	454	1022	1296	410	539	
Scalds							1126	1158	
Drowning Submersion	1		14	4	7		57	98	
Suffocation					485				
Asphyxia			8		2				
Poisoning Conflagation	36		39	129	233	765	1495	2195	
Gunshot	54		104	125	155		165	151	
Electrocution			2	10	6		67	73	
Heat - sun stroke	5		8	12	14		22		
Cold			6	13	8		8		
Starvation			1		1				
Exposure	9								
Destitution				3					
Animal Injuries			5	11	20		253		
Bites & stings				9	15		40		
Vaccine reaction					54				
Industrial acc.							1663	6744	
Cuts									
Stabs									
Crushing			5						
Accidental medical					17		1776	3006	
Surgical									
Mines - Quarries									
Others	97*		3006	4590	6546	11767	472		
TOTAL	2012		5723	9265	14537	22200	28351	47051	
Deceased	77	127	199	257	364	499			

* Not included in total

Source: New Zealand Official Year Books: 1902; 1912; 1922; 1932; 1942; 1952; 1962; and 1972.

APPENDIX B

SAMPLE CONTENT ANALYSIS OF MEDICAL AND SURGICAL EXAMINATION PAPERS IN TWO TIME PERIODS

A) DECEMBER 1931
B) JUNE 1961

APPENDIX B

CONTENT ANALYSIS OF EXAMINATION PAPERS MEDICAL AND SURGICAL

Dimensions of Nursing Practice	Content Analysis Category	(a) December 1931 Medical	(a) December 1931 Surgical	(b) June 1981 Medical	(b) June 1981 Surgical
CARE	General Nursing Care	6	3	8	11
	Physical Care				
	Pain				
	Sleep				
	Psychosocial Care			29	23
	Specific Patient	6	2	64	51
	Age of Patient			7	
	Abilities/Disabilities			1	
	Total number of Themes in Care Dimension	12	5	109	95
CURE	Observations/Assessments			2	2
	Blood Pressure				
	T.P.R.				
	Patient Progress	2	2	11	17
	Complications		1	3	6
	Functional Status	17	12	82	53
	Medications			18	15
	Diet	3		11	0
	Patient Activity			5	3
	Weight			1	0
	Intake and Output				
	Treatments		16	11	9
	Specimens			5	6
	Tests and Procedures		16	7	41
	Artificial Drainage Methods				1
	Artificial Intake Methods				2
	Total number of Themes in Cure Dimension	22	47	156	155

PROTECTION	Professional Responsibilities Precautions and Preventive Measures			2 13	7 7
	Total number of Themes in Protection	0	0	15	14
TEACHING	Patient Participation Health Education			11	6
	Total number of Themes in Teaching			11	6
CO-ORDINATION	Interaction - Team Interaction - Nurse	4	1 0	19 39	15 32
	Total number of Themes in Co-ordination	4	1	58	47
PATIENT ADVOCACY	Patient Preferences/interests Nurse Patient Interaction			3	3
	Total number of Themes in Patient Advocacy	0	0	3	3
Total Theme Count in Patient Care Categories		38	30	352	320
AUXILIARY CATEGORIES	Anatomy and Physiology	3	13	39	77
	Time	2	3	15	17
	Location	1	0	7	18
	Examination instructions	8	10	131	162
Total Theme Count in All 36 Categories		52	76	544	594

APPENDIX C

NEW ZEALAND NURSING JOURNAL
REFERENCES

NEW ZEALAND NURSING JOURNAL REFERENCES

Acland, " The Camel-Dakin Treatment." New Zealand Nursing Journal. Vol. X: no. 4. October 1917. p.p. 216-219.

Adams, R. " Interpersonal Relationships in the Work Situation." New Zealand Nursing Journal. Vol. LII: no. 2. April 1959. p.p. 51-53.

Aitchison, M. " Organisation of an Emergency Hospital." New Zealand Nursing Journal. Vol. XXXV: no. 12. December 1942. p.p. 301-302.

Allen, J. " Winning Essay - General Training Schools." New Zealand Nursing Journal. Vol. XLVIII: no. 2. April 1955. p.p. 37-39.

Arlie, M. "Cystic Fibrosis" New Zealand Nursing Journal. Vol. 67: no. 1. January 1974. p.p. 12-14.

Ashby, F. " Gastro-Jejunal Intususception." New Zealand Nursing Journal. Vol. LVIII: no. 1. January 1965. p.p. 15-16.

Asher, B. " Education and Change." New Zealand Nursing Journal. Vol. 70: no. 2. February 1977. p.p. 6-7.

Bailey, M. "Thyrotoxicosis". New Zealand Nursing Journal. Vol. LIX: no. 8. August 1966. p.p. 12-17.

Beaumont-Orr.P." Nursing Care of Lobectomy." New Zealand Nursing Journal. Vol. XXXIX: no. 11. November 15 1946. p.p. 307-308.

Beckingham. C. " What About the Relatives?' New Zealand Nursing Journal. Vol. 69: no. 11. November 1976. p.p. 14-15.

Berthat, E. "Ward Reporting." New Zealand Nursing Journal. Vol. 47: no. 2. February 1949. p.p. 15-19.

Bihet, M. "The Nurse of Tomorrow." New Zealand Nursing Journal. Vol. L: no. 3. June 1957. p.110.

Bisset, J. "Colocytoplasty" New Zealand Nursing Journal Vol. LVIII: no. 3. March 1965. p.p. 16-18.

Blakeley, N. "Carcinoma of the Bowel." New Zealand Nursing Journal. Vol. 68: no. 8. August 1974. p.p. 6-7.

B.M.J. "On Splints." New Zealand Nursing Journal. Vol. XIV: no. 4. October 1921. p.140.

Bodmar, F. "Psychology." New Zealand Nursing Journal. Vol. XXXVII: no. 8. August 1944. p.175.

Bohm, S. "The Paramedical Nurse" New Zealand Nursing Journal. Vol. LXIV: no. 11. November 1971. p.p. 16-18.

Boyd, E. "Impressions and Observations". New Zealand Nursing Journal. Vol. LX: no. 11. November 1962. p.p. 13-16.

Boyd, E. "The Correction Under Extracorporeal Circulation of Mitral Incompetence following Bacterial Endocarditis" New Zealand Nursing Journal. Vol. LV: no. 1. January 1962. p.p. 9-12.

Bray, D. "Learning: To What Ends and How?" New Zealand Nursing Journal. Vol. LXI. no. 6. June 1968. p.p.24-29.

Bremnar, G. "Nursing Management of Childhood Leukaemia." New Zealand Nursing Journal. Vol. 70: no. 4. April 1977. p.p. 12-15.

Brennan, A. "Clinical Assessment" New Zealand Nursing Journal. Vol. 68: no. 11. November 1975. p.p. 4-5.

Brewster, V. "New Concepts in Nursing (1)" New Zealand Nursing Journal. Vol. LX: no. 9. September 1967. p.p. 5-8.

Brodie, S. "Drug Monitoring Part 1." New Zealand Nursing Journal. Vol. 71: no. 10. October 1978. p.15.

Brodie, S. "Drug Monitoring. Part 2." New Zealand Nursing Journal. Vol. 71: no. 11. November 1978. p.p. 5-7.

Burns, C. "To Care for the Sick" New Zealand Nursing Journal. Vol. LVI: no. 1. January 1963. p.p. 15-21.

Cameron, F.J. "Training - or Education." New Zealand Nursing Journal. Vol. XLVIII: no. 4. October 1955. p.p. 155-157.

Cameron, F.J. "The Selection of Students for Nursing" New Zealand Nursing Journal. Vol. LVI: no. 6. August 1963. p.p. 4-5.

Campbell, H. "The Aseptic Habit and Its Importance in Nursing." New Zelaand Nursing Journal. Vol. XXXIX: no. 11. December 15. 1946. p.p. 246-248.

Carroll, M. "Educating the Nurse for the Future." New Zealand Nursing Journal. Vol. 70. no. 11. November 1977. p.p. 3-7.

Carter, G. and Pearce, E. "Extracts from 'Reconsideration of Nursing'." New Zealand Nursing Journal. Vol. XXXIX: no. 11. November 15 1946. p.p. 316-319.

Chambers, M. "A Nurse's Viewpoint." New Zealand Nursing Journal. Vol. LV: no. 8. August 1962. p.p. 12-15.

Childe, E. "Proctoclysis on the Murphy Treatment." New Zealand Nursing Journal. Vol. 11: no. 4. October 1909. p.164.

Chittock, R. "One Nurse's Utopia." New Zealand Nursing Journal. Vol. LV: no. 10. October 1962. p.p. 5-12.

Churchill, B. "Lens Implant" New Zealand Nursing Journal. Vol. LIV: no. 10. October 1961. p.p. 22-26.

Clarke, C. "What is Involved in Open-Heart Surgery" New Zealand Nursing Journal Vol. LVIII: no. 12. December 1963. p.p. 8-11.

C.M. "On the Receiving End or Operation Iodine". New Zealand Nursing Journal. Vol. LIV: no. 4. April 1964. p.p. 31-33.

Coleman, I. "The Care and Education of a Patient Suffering from Diabetes, with Special Reference to Her Return to a Normal Life in the Community." New Zealand Nursing Journal. Vol. XLIV: no. 1. Feburary 15 1951. p.p. 4-6.

Collins, B. "Intensive Care Assignment: renal transplant" New Zealand Nursing Journal. Vol. 67: no. 5. May 1974. p.p. 4-7.

Colquhoun. "On Training of Nurses." New Zealand Nursing Journal. Vol. XVIII: no. 2. April 1925. p.p. 53-54.

Corry, M. "Will Patient Assignment Improve Nursing Care." New Zealand Nursing Journal. Vol. 69: no. 2. February 1976. p.p. 24-26.

Cosgrove, J. "Appendicectomy." New Zealand Nursing Journal. Vol. XXXV: no. 2. 15 February 1942. p.p. 57-60.

Craig, K. "First Aid" New Zealand Nursing Journal Vol LVI: no 10. October 1963. p.p. 32-33.

Cramond, W. "The Psychological Care of Patients with Terminal Illness." New Zealand Nursing Journal. Vol. 66: no. 10. October 1973. p.p. 23-25.

Cramond, W. "The Psychological Care of Patients with Terminal Illness". New Zealand Nursing Journal. Vol. 66: no. 9. September 1973. p.p. 27-29.

Cranswick, E. "Some Impressions of Early Ambulation." New Zealand Nursing Journal. Vol. XLVI; no. 2. April 15 1953. p.p. 52-53.

Davies, M. "Casualty Clearing Station." New Zealand Nursing Journal Vol XI: no. 2. April 1918, p. 76.

de Lacey, M. "Nursing Care Studies." New Zealand Nursing Journal. Vol. 71: no. 6. June 1978, p.p. 7-8.

De La Mere, "Discharged - Not Yet Diagnosed." New Zealand Nursing Journal. Vol. 72: no. 6. June 1979. p.p. 3-5.

Delaney, J. "Care of the Long-term Aged Patient: Is It More Than Custodial Care?" New Zealand Nursing Journal. Vol. 73: no. 10. October 1980. p.p. 5-6.

Dickie, C. "Care in the Community." New Zealand Nursing Journal. Vol. LXV: no. 11. November 1972. p.p. 22-24.

Douglas, H. "Qualities of the True Nurse" New Zealand Nursing Journal. Vol. LXIII: no. 1. January 1970. p.p. 18-19.

Duke, M. "Non-Clinical Tasks" New Zealand Nursing Journal Vol. 66: no. 1. January 1973. p.4.

Edwards, A. " Forsight Prevents Blindness." New Zealand Nursing Journal. Vol. 69: no. 5. May 1978. p.p. 6-8.

Every. " Round Table Discussion on Nursing Education at Conference." New Zealand Nursing Journal. Vol. XXII. no. 1: January 1929. p. 3.

Floyd, P. " Case Study: Actinomycosis." New Zealand Nursing Journal. Vol. XXXIX: no. 6. October 15 1946. p.p. 274-276.

Ford, J. " Case History: A multiple sclerosis patient." New Zealand Nursing Journal. Vol. 69: no. 6. June 1975. p.p. 15-16.

Francis. R. " Some Elementary Precautions in Nursing Tuberculosis Patients." New Zealand Nursing Journal. Vol. XXXIX: no. 7. July 15 1946. p.p. 176-180.

Francis, R. " Tuberculosis." New Zealand Nursing Journal. Vol. XXXIX: no. 8. May 15 1946. p.p. 220-221.

Francis, R." Tuberculosis: A Problem of Rehabilitation." New Zealand Nursing Journal. Vol. XXXIX: no. 8. October 15 1946. p.p. 272-274.

Fraser, A. "Care of Intravenous Infusions using double-bottle technique." New Zealand Nursing Journal. Vol. LVIII; no. 9. September 1965. p.p. 13-20.

Fraser, J. "An Overdose of Barbiturates Treatment by Artificial Kidney". New Zealand Nursing Journal. Vol. LIV. no. 11. November 19761. p.p. 10-11.

Gardner, B. "Selection of Students - (A Matrons Point of View)" New Zealand Nursing Journal. Vol. LVII. no. 4. April 1964. p.p. 7-9.

Gardiner, M. "Early Ambulation and Other Modern Methods in Surgical Care." New Zealand Nursing Journal. Vol. XLI: no. 1. February 15 1948. p.p. 9-10.

Goldsmith, E. "A Busy Casualty Hospital." New Zealand Nursing Journal. Vol. XXIV: no. 2. March 16 1931. p. 88.

Grant, S. "A Role for the Nurse in Caring for - the Individual Suffering from - Rheumatoid Arthritis." New Zealand Nursing Journal. Vol. 73: no. 1. January 1980. p.p. 16-19.

Green, D. "Pain and the Hospitalised Patient. Part One." New Zealand Nursing Journal. Vol. 71: no. 8. May 1979. p.p. 3-7.

Green, D. "Pain and the Hospitalized Patient. Part Two." New Zealand Nursing Journal. Vol. 71: no. 9. September 1978. p.p. 7-9.

Green, D. "Aspects of Infantile Autism." New Zealand Nursing Journal. Vol. 72: no. 1. January 1979. p.p. 18-22.

Green, D. "Schizophrenia: Some Problems for the Nurse" New Zealand Nursing Journal. Vol. 73: no. 1. January 1980. p.p. 11-13.

Gumbrell, J. "The Philosophy of the Preliminary School" New Zealand Nursing Journal Vol. LVI: no. 1. January 1963. p. 11.

Howes, E. " Cellophane as a Wound Dressing." New Zealand Nursing Journal. Vol. XXXIII: no. 9. 1940 August p. 257.

Health Department Release. "Venereal Disease in N.Z.". New Zealand Nursing Journal. Vol. LCL: no. 11. November 1978. p.p. 20-23.

Henley, W. "Arts Necessary to Humanise Science" New Zealand Nursing Journal. Vol. LV: no. 9. September 1962. p.4.

Herbert, A. " The Physical Treatment of Wounded." New Zealand Nursing Journal. Vol. X: no. 1. January 1917. p.p. 27-35.

Hill, D. "Surgical Case Study". New Zealand Nursing Journal. Vol. LVII: no. 3. March 1964. p.p. 13-20.

Hixon, K. " Caring for the Dying Ideal vs Actual Care." New Zealand Nursing Journal. Vol. 71: no. 12. December 1978. p.p. 19-20.

H.M. "The Nursing of Mental Cases." New Zealand Nursing Journal. Vol. 1: no. 2. April 1908. p.p. 41-42.

Hofland, I. "A Nursing Case Study." New Zealand Nursing Journal. Vol. LIII: no. 1. January 1960. p.p. 21-25.

Holdgate, E. "We Have a Unique Opportunity Now". New Zealand Nursing Journal. Vol. LXIV: no. 6. June 1971. p.p. 4-6.

Holloway, A. "Patient Centred Nursing Care" New Zealand Nursing Journal. Vol. 68: no. 9. September 1974. p.p. 14-16.

Hooker, C.H. "Total Hip Replacement". New Zealand Nursing Journal. Vol. LXIV: no. 1. January 1971. p.p. 21-22.

Hope-Lewis, "The Trained Nurse as an Assistant." New Zealand Nurses Journal Vol. II: no. 4. October 1909. p.p. 153-155.

Hubert, B. "Some Simple Orthopaedic Nursing Measures:" New Zealand Nursing Journal. Vol. LXI: no. 7. July 1968. p.p. 18-19.

Jackson, M. and Jackson, M. "Lobar Pneumonia - 1932." New Zealand Nursing Journal. Vol. L.1: Golden Jubilee Issue. January 1958. p. 35.

James, B. "Trends in Medical Care and the Nurse/Patient. Relationship." New Zealand Nursing Journal. Vol. 70: no. 5. May 1977. p.p. 11-12.

Jenkins, D. "Case Study." New Zealand Nursing Journal. Vol. 73: no. 2. February 1980. p.p. 16-18.

Jermyn, P. "Removal of Wilm's Tumour." New Zealand Nursing Journal. Vol. LXV: no. 6. June 1972. p.p. 6-8.

Jones, L. "Experimenting with the Curriculum". New Zealand Nursing Journal. Vol. LXI: no. 5. May 1968. p.p. 9-10.

Jones, R. "Mechanical Treatment of Compound and Simple Fractures." New Zealand Nursing Journal. Vol. VIII. no. 2. April 1915. p.p. 105-106.

King, R.D. "Address Given by Dr R.D. King at a Regional Study Day, held at Timaru Hospital in October, 1960." New Zealand Nursing Journal. Vol. LIV: no. 4. April 1961. p.p. 11-15.

Kinross, N. "Community Health and the Basic Curriculum" New Zealand Nursing Journal. Vol. LVII: no. 7. June 1964. p.p. 9-10.

Knight, S. "Case Study - Gastric Bypass." New Zealand Nursing Journal. Vol. 73: no. 1. January 1980. p.p. 27-28, & p. 33.

Knox, C. "Nursing Case Study on Acute Drug Induced Psychoses, and Residual Neurotic Depression." New Zealand Nursing Journal. Vol. 71: no. 6. June 1978. p.p. 10-15.

Leabourne, B. "Obstetric Case Study." New Zealand Nursing Journal. Vol. 71: no. 5. May 1978. p.p. 14-17.

Lewis, J. "Introducing Sociology" New Zealand Nursing Journal. Vol. LXII: no. 3. March 1969. p.6 & p.16.

Lindsay, E. "The Pre-Operative and Post-Operative Care of a Case of Hysterectomy." New Zealand Nursing Journal Vol. XLIII: no. 1. February 15 1950. p.p. 7-10.

Linton, S. "Letterer - Siwe Disease. A Caring Case Study. New Zealand Nursing Journal. Vol. 70: no. 11. November 1977. p.p. 15-16.

Lohr. "Cod Liver Oil Treatment of Wounds." New Zealand Nursing Journal. Vol. XXXI: no. 1. January 15 1958. p.p. 2-3.

MacGregor, "Sleep" New Zealand Nursing Journal. Vol. LIV: no. 9. September 1961. p.18.

MacKenzie, K. "Massage and Mobilisation." New Zealand Nursing Journal. Vol. XV: no. 3. July 1972. p.157.

MacLean, B. "The Sickroom Scene - A Valuable Experience" New Zealand Nursing Journal. Vol. LV: no. 12. December 1962.p.p. 32-33.

McCallum, J. "Case Study" New Zealand Nursing Journal. Vol. LVI: no. 1. January 1963. p.p. 31-33.

McKay, L. "Do You practice What is Taught." New Zealand Nursing Journal. Vol. 69: no. 7. July 1975. p.p. 4-5.

McKay, L. "The Gap - Is it Closing?" New Zealand Nursing Journal. Vol. 71: no. 5. May 1978. p.p. 27-28.

McKenny. "Concerning Nursing and Nursing Training." New Zealand Nursing Journal. Vol. XII: no. 4. October 1919. p.p. 178-179.

McLeod, G. "Opthalmic Nursing." New Zealand Nursing Journal Vol. XI: no. 2. April 1918. p.p. 185-190.

McNaughton, M. "How to Meet the Demand of the Health Service." New Zealand Nursing Journal. Vol. XLIII: no. 2. April 15 1950. p.p. 54-58.

Mahler, H. "Smoking or Health, The Choice is Yours." New Zealand Nursing Journal. Vol. 73: no. 3. March 1980. p.p. 14-15.

Marquand, C. "Planned Nursing Care Applied" New Zealand Nursing Journal. Vol. LXIII: no. 5. May 1970. pp. 11-14.

Matthews, P. " Myocardial Infarction." New Zealand Nursing Journal. Vol. 73: no. 2. February 1980. p.p. 5-9.

Mercer, B. "Intensive Care Units at Wellington" New Zealand Nursing Journal. Vol. LXIV: no. 8. August 1971. p.p. 21-22.

Merrick. C. "Unusual Surgical Emergency". New Zealand Nursing Journal. Vol. 66: no. 11. November 1973. p.p. 21-23.

Millar, J. "Rheumatoid Arthritis" New Zealand Nursing Journal. Vol. LXIII: no. 6. June 1970. p.p. 19-22.

Miller, N. "As I See It" New Zealand Nursing Journal. Vol. 66:no. 8. August 1973. p.p. 7-8.

Mirams, S. " Some Observations on Psychological Illness As Compared with Physical Disease." New Zealand Nursing Journal. Vol. XXXIX: no. 11. November 15 1946. p.p. 309-311.

Moore, J. " Case Study of Good Pasture's Syndrome." New Zealand Nursing Journal. Vol. LII: no. 2. April 1959. p.p. 69-70.

Morris, J. "Rehabilitation Following Surgery for Cancer of the Breast Continued." New Zealand Nursing Journal. Vol. 73: no. 6. June 1980. p.p. 4-5.

Morrison, S. "Electronics in Nursing" New Zealand Nursing Journal. Vol. LXV: no. 6. June 1972. p.p. 12-16.

National Heart Foundation. "Will You be Struck Down by Heart Disease." New Zealand Nursing Journal. Vol. LXII: no. 12. December 1969. p.16.

Neame, W. "Case Study. Wednig Hoffman Disease." New Zealand Nursing Journal. Vol. 73: no. 2. February 1980. p.p. 27-29.

Neilson, T. "Assignment: Diabetes Mellitis." New Zealand Nursing Journal. Vol. 73: no. 5. May 1980. p.p. 37-38.

Newman, D. "The Nurse and the Patient". New Zealand Nursing Journal. Vol. LVI: no. 2. February 1963. p.p. 5-7.

New Zealand Department of Health. "Artificial Respiration." New Zealand Nursing Journal. Vol. XXXV: no. 2. 15 February, 1942. p.p. 43-45.

O'Brien, M. "Adaptation and Its Implications for Nursing Practice." New Zealand Nursing Journal. Vol. 70: no. 4. April 1977. p.p. 28-29.

Ollerenshaw, K. "Change in Education their Affects on Nurse Recruitment." New Zealand Nursing Journal. Vol. LVI: no. 11. Nov. 1963. p.p. 18-22.

Orbison, K. "The Patient as an Individual." New Zealand Nursing Journal. Vol. 42: no. 6. June 1949. p.112.

Parker, R. "Pinewood Sawdust as a Surgical Dressing." New Zealand Nursing Journal. Vol. VIII: no. 1. January 1915. p.49.

Parkinson, M.H. "Is it .... Or isn't it?" New Zealand Nursing Journal. Vol. 65: no. 10. October 1972. p.p. 10-11.

Prentice, S. "Nursing Care of a Patient Admitted for Cholecystectomy." New Zealand Nursing Journal. Vol. 69: no. 9. September 1976. p.p. 13-14.

Pritchard, E. "Clinical Teaching" New Zealand Nurses Journal. Vol. LIV: no. 3. March 1961. p.p. 15-17.

Pyatt, E. "Nursing in the New Hebrides." New Zealand Nursing Journal. Vol. XLV: no. 3. June 16 1952. p.p. 87-88.

Rainey, H. "Gamma Ray Sterilisation Checks and Safeguards" New Zealand Nursing Journal. Vol. LXIV: no. 5. May 1971. p.p. 16-17.

Read, W.G. "Public Health and the Student Nurse." New Zealand Nursing Journal. Vol. XLVIII: no. 1. February 1955. p.p. 9-11.

Rockefeller Foundation. "Role of the Nurse in Cure and Prevention." Vol. XV: no. 4. October 1922. p.182.

Rouhani-Potter. "Health and Culture." New Zealand Nursing Journal. Vol. 66: no. 3. March 1973. p.p. 13-16.

Roydhouse, N. "Chronic Otitis Media." New Zealand Nursing Journal. Vol. 68: no. 11. November 1975. p.p. 17-18.

Sadler, K. "Total Hysterectomy". New Zealand Nursing Journal. Vol. LXI: no. 10. October 1968. p.p. 11-13.

Salmon, E. "Isolation Bred Those Myths of Nursing" Vol. LXIV: no. 4. April 1971. p.p. 5-7.

Sand, R. "The Nurse - Sentinel of Health." New Zealand Nursing Journal. Vol. XLVII: no. 2. April 15 1954. p.p. 42-43.

Sparrow, D. "My Last Myocardial Infarcton." New Zealand Nursing Journal. Vol. 70: no. 5. May 1977. p.p. 16-17.

Spencer, E. "A Nursing Case Study." New Zealand Nursing Journal. Vol. 67: no. 4. April 1974. p.p. 17-18.

Stewart, J. "Training - As Employees?" New Zealand Nursing Journal. Vol. 65: no. 10. October 1972. p.p. 22-26.

Taylor, D. "Emily - A Case of Polyneuritis." New Zealand Nursing Journal. Vol. 72: no. 10. October 1979. p.p. 3-7.

Taylor, M. "The Spina Bifida Child." New Zealand Nursing Journal. Vol. 66: no. 12. December 1973. p.p. 11-14.

Thompson, A. "Medicine Fifty Years Ago, and Today." New Zealand Nursing Journal. Volume LI: Golden Jubilee Issue. January 1958. p.p. 13-15.

Thompson, D. "Modern Methods in the Prevention of Epidermis Disease." New Zealand Nursing Journal. Vol. XLI: no. 2. April 15 1948. p.p. 48-51.

Unnamed Post-Graduate Public Health Nurse. "The Public Health Nurse in New Zealand." New Zealand Nursing Journal. Vol. XXXVIII: no. 12. 15 December 1945. p.p. 281-283.

Unsigned Article. "Comparisons - An Old Nurse." New Zealand Nursing Journal. Vol. XI: no. 1. January 1918. p.p. 43-44.

Unsigned Article. "Nursing Under An Insurance Company." New Zealand Nursing Journal. Vol. XVI: no. 3. July 1929. p.109.

Unsigned Article. "Auckland Nurse and Civil Defence." New Zealand Nursing Journal. Vol. XXIV: no. 9. September 15 1931. p. 332.

Unsigned Article. "Traumatic, Inflammatory and Infectious Conditions." New Zealand Nursing Journal. Vol. XXV: no. 1. January 16 1932. p.14.

Unsigned Article. "Examination Answers." New Zealand Nursing Journal. Vol. XXXIX: no. 11. November 15 1946. p.p. 314-316.

Unsigned Article. "The Place of the Nurse in the Health Services of a Country." New Zealand Nursing Journal. Vol. XLV: no. 3. June 16 1952. p.p. 92-103.

Unsigned Editorial. "The Other Side of the Coin". New Zealand Nursing Journal. Vol. LX: no. 5. May 1967. p.4.

Upton, E. "Case Study. Kimmelstiel Wilson Syndrome." New Zealand Nursing Journal. Vol. LXI: no. 2. February 1968. pp. 9-11.

Vamos, J. "Abdomino-Perineal Pull-Through of the Colon and Rectal Stump" New Zealand Nursing Journal. Vol. LX: no. 9. September 1967. p.p. 19-23.

Van Lier, M. "A Nursing Case Study." New Zealand Nursing Journal. Vol. 67: no. 5. May 1974. p.p. 20-23.

Voelkerling. H; Thompson, A; and Rodgers, T. "The Nurse Within the Area of Rehabilitation." New Zealand Nursing Journal. Vol. 74: no. 5. May 1981. p.p. 30-32.

Walker, F. "Psychological Stress Associated with Coming Into Hospital." New Zealand Nursing Journal. Vol. 70: no. 3. March 1977. p.p. 9-12.

Wallis, E." Pathological Fracture Due to Parathyroid Tumour" New Zealand Nursing Journal. Vol. VLIII: no. 6. October 16 1956. p.p. 174-175.

Wardale, A. "The Surgical Treatment of Deafness Due to Oto-Sclerosis." New Zealand Nursing Journal. Vol. XL: no. 3. June 15, 1947. p.p. 101-102.

Watt, J." Relation of Nurses to Patients." New Zealand Nursing Journal. Vol. LI: no. 4. August 1958. p.p. 137-139.

Whelan, R. "Care of a Patient Suffering from Pulmonary Tuberculosis." New Zealand Nursing Journal. Vol. LIII: no. 9. September 1960. p.p. 26-27.

Williams, P. "Case Study - Acute Nephritis." New Zealand Nursing Journal. Vol. XXXVIII: no. 12. 15 December 1945. p.p. 295-297.

Willis, K. "Case Study - Hydatidiform mole." New Zealand Nursing Journal. Vol. 71. no. 9. September 1978. p.p. 25-27.

Young, W. "Complete Excision of the Rectum for Cancer." New Zealand Nursing Journal. Vol. XII. no. 4. October 1919. p.p,173-174.

APPENDIX D

CATEGORIES FOR CONTENT ANALYSIS

CATEGORIES FOR CONTENT ANALYSIS OF EXAMINATION PAPERS BY THEME

(Categories developed from Georgopoulos and Jackson (1970) and Kinross (1981) and applied to scheme (Holsti 1969) devised for this present study).

PATIENT CARE CATEGORIES

A. CARE DIMENSION

1. General Nursing Care: any statements about "general nursing care" (that is nursing care not specifically listed as either physical or psychological care); references to pre- or post-operative care; nursing cares and preparation of unit for patients admission

2. Physical Care: data about the patient's positioning hygiene, grooming, rest and comfort, prosthetic or dental care, and other physical aspects, references to "same cares", and promotion of wound healing.

3. Pain: all explicit and specific references to pain or its characteristics.

4. Sleep: any direct references to the patient's sleep.

5. Psychosocial Care: references to the patient's and relatives emotional response, adjustment, fears or anxiety, self-concern, family or occupational and social relation, prognosis, therapy, rehabilitation, or post-hospital care, and other psychological and social problems, orientation to hospital and other patients.

6. Specific Patient: any references to specific patients by name or by words such as "he" or "she".

7. Age: any reference to the patient's age or stage of the patient such as elderly or young.

8. Ability/Disabilities: Statements of specific sensory-motor impairments and of special assistance needed by patient in connection with this special patient skills, and/or abilities and references to deficits secondary to the patient's pathology or main reason for hospitalisation.

B. CURE DIMENSION

I. Observations

9. Observations and Assessment: any themes concerning observation and assessments made by the nurse which do not explicitly relate to specific vital signs and references to nursing history or examinations.

10. Blood Pressure: any data pertaining to the patients blood pressure.

11. T.P.R.: any statements concerning the patient's temperature pulse or respiration.

12. Patient Progress: any statements concerning changes over time, whether positive or negative, in the patient's condition of hospitalization stage and status.

13. Complications: any statements concerning complications that may be or are manifested by the patient. Also included are signs and symptoms of these complications.

14. Functional Status: any statements referring to symptoms or signs (other than vital signs) manifested by the patient, description of physiological dysfunctions, level of consciousness, level of severity of illness, diagnosis and provisional diagnosis, descriptions about cause of the present physical status.

II. Treatments

15. Medications: any references to medicines or drugs (type, dose, frequency), and their prescription, supply, administration, effects, side effects, and recording (excluding intravenous additives).

16. Patient Diet: all statements regarding food or nutrition including therapeutic dietary requirements and the type, amount, and special characteristics of food, required, ordered or consumed.

17. Patient Activity: any statements concerning activity privileges or restrictions for the patient including immobilization and locomotion concerns.

18. Weight: any data concerning the patient's weight or weighing.

19. Intake and Output: specific references to the quantity of fluids taken by the patient and subsequent output, fluid restrictions, fluid balance and medical orders, regarding fluids and their administration and recording. P.V. loss is included in this section.

III. Technical Skills - Procedures

20. Treatments: all explicit comments regarding specific therapies such as suctioning, dialysis, wound dressing, physiotherapy, inhalation treatment, oxygen assisted respiration, soaks, enemas, irrigations, catheterizations, sterilisation methods, first aid measures, the use of special aids such as heat lamps, Stryker bed, special tray and equipment.

21. Specimens: any themes concerning the collection, management, processing, and character (purpose, type, frequency, findings) of specimens obtained from patients, as well as medical instructions regarding specimens.

22. Tests and Procedures: all references to diagnostic tests (blood and urine tests, x-rays, biopsies, scans, liver function test etc) medical investigations and related procedures, whether at the bedside, the patient unit, or other parts of the hospital. Routine and special physical or technological examinations by a doctor are included here as are surgical procedures and references to anaesthetics.

23. Artificial Drainage Methods: all explicit themes about urinary tract drainage devices, their functioning, and their use and care. Functioning of colostomy, ileostomy and attachments. Care and functioning of tracheostomy and thoracic drainage also included as are references to a nasogastric tube for aspiration purposes, and tubes or drains such as redivas in wounds.

24. Artificial Intake Methods: themes concerning any intravenous or parenteral fluids including fluids with medication additives and their administration

and management. Also included are the care and functioning of nasogastric tube, subcutaneous injections, etc.

C. PROTECTION DIMENSION

25. Professional Responsibilities: any statements referring to knowledge of and complications with medico-legal requirements, maintenance of records and charts such as drug records, professional standards, behaviour and integrity, and matters relating to maintenance of patient safety.

26. Precautions and Preventive Measures: any themes concerning isolation or other precautionary measures relating to such things as seizures, allergies of infections, antisuicidal measures, and measures against exposure to radiation or other dangers, either on the part of patients or staff. Also included here are references to conditions being prevented and preventive measures such as vaccinations, their effect and side effects.

D. TEACHING DIMENSION

27. Patient Participation: explicit statements pertaining to patient involvement in the care process of self-care, including self-medication, attendance at classes (e.g. diabetic, antenatal).

28. Health Education: direct and indirect health teaching or matters relating to health care or healthy practices given by nurses to others or to patients families, community members or groups, ancillary personnel, paramedicals or others. Also includes any health education data pertaining to statements about the New Zealand health care setting or health status of the population.

E. CO-ORDINATION DIMENSION

29. Interactions - Team: Any theme pertaining to interaction with other members such as health care personnel (Doctors, paramedicals, clergy) or auxillary staff such as wards maid, etc., and any themes relating to their subsequent actions, or orders for nursing personnel.

30. Interaction - Nurses: any references to nurses at all levels of the profession and interaction between nurses.

F. PATIENT ADVOCACY DIMENSION

31. Patient Preferences/Interests: individual desires, likes and dislikes, hobbies, personal preferences, and statements regarding patient acceptance or refusal on matters not directly associated with his illness.

32. Nurse - Patient Interaction: any reference to specific nurse-patient or nurse-relative interaction written or oral reports informing other health team personnel about patients' concerns, and themes relating to nurses referring patients to other health team members or community agencies.

AUXILLARY CATEGORIES

33. Anatomy and Physiology: includes any specific reference to the anatomy and physiology of the body.

ADMINISTRATION CATEGORIES

34. Time: all explicit references to time.

35. Location: any themes concerning the area where the nurse is working or the patient is located excluding those in questions relating to accidental trauma.

36. Examination Instructions: all themes relating to examination instructions. Also included in this category are any themes pertaining to discrimination activities that students are asked to carry out such as list, describe, draw or give the most likely main reason etc.

APPENDIX E

THE MANN-WHITNEY U TEST
(WHITE TEST)

THE MANN-WHITNEY U TEST
(WHITE TEST)

Formula:

T = sum of ranks of smaller group or, when $n_1 = n_2$, the smaller of the two rank sums.

$$T^1 = [n_1(n_1 + n_2 + 1)] - T$$

where n_1 is the size of the smaller group.

When $n_1 + n_2 > 30$. Table 1 cannot be used, and a normal distribution approximation is used where the T score for P = .05 and P = .01 is given by:

$$T = \left[\frac{n_1(n_1 + n_2 + 1)}{2}\right] - \left[Z\sqrt{\frac{n_1 n_2(n_1 + n_2 + 1}{12}}\right]$$

Where $Z = 1.96$ for $P = .05$
$Z = 2.58$ for $P = .01$

This appropriation is often not suitable for P = .001.

(Friedman, 1972. p62).

APPENDIX F

THE REPORT OF THE COMMITTEE ON EDUCATON OF THE INTERNATIONAL COUNCIL OF NURSES (1931)

F.1) The Duties and Responsibilities of Professional Nurses

F.2) Suggested Educational Programme

APPENDIX F.1

SUGGESTED EDUCATIONAL PROGRAMME

The suggested educational programme is derived from programmes sent in to the International Council of Nurses by 20 countries. The subjects which are marked E. (essential) were found in practically all lists sent in. The subjects marked R. were found in most of the lists and are recommended in all but two or three.

The subjects have been divided into three main groups organised around the three principle elements of nursing. The three principle elements in the nursing curriculum are: -

> The fundamental scientific principles which guide nursing practice. The technical and social skills which constitutes the art of nursing. The humanistic and professional ideals which determine the spirit and attitude of the nurse. (Stewart, 1931 p83)

SUBJECTS

	Recommended No. of hours
1. The elementary Sciences (applied to Nursing).	
E. Anatomy and Physiology (sometimes given as separate subjects and sometimes combined	60 - 90
R. Bacteriology (sometimes includes Parasitology)	10 - 20
R. Chemistry (sometimes includes Physics)	20 - 40
E. Personal Hygiene (sometimes includes Sanitation)	10 - 20.

	Recommended No. of hours
R. Psychology (usually includes some Mental Hygiene and Pedagogy)	15 - 30
2. The Nursing Arts and Clinical Subjects (these subjects deal mainly with the Nursing Arts and with the study of Disease and its Treatment)	
E. Nursing Principles and Practice (usually given in an elementary and a more advanced course. This includes housekeeping, or domestic economy, bandaging, rubbing, simple occupations, etc)	90 - 140
E Dietetics (including Nutrition, Invalid Cookery and Diet therapy)	40 - 60
R. Materia Medica and Therapeutics (including the preparation and use of disinfectants, the action of common drugs and other therapeutic agents such as light, electricity, etc).	30 - 45
R. Elements of Pathology (an introduction to the causes and nature of disease. Common tests, including simple urine analysis)	10 - 15
R. Case Study (an introduction to the systematic study of individual patients from the standpoint of their personality, social background, physical condition, treatment, nursing care. Nursing (including child care and infant and preventive measures)	10 - 15
E. Nursing in General Medical Diseases	20 - 30

	Recommended No. of hours
E. Nursing in Communicable Disease or Fever Nursing (including Tuberculosis, Venereal Diseases and Skin Disease)	20 - 30
E. Nursing in General Surgical Diseases	20 - 30
R. Nursing in Diseases of the Eye, Ear and Nose	
E. Nursing in Surgical Specialties (including Gynaecological, Orthopaedic and Operating Room Nursing or Theatre Work)	20 - 30
E. Nursing in Children's Diseases or Pediatric feeding	20 - 30
R. Obstetrical Nursing (distinguished from midwifery, but including the nursing phases of midwifery)	20 - 30
R. Nursing in Mental and Nervous Diseases (including psychiatric and neurological conditions) and Throat (including Oral Hygiene)	10 - 15
R. Emergency Nursing and First Aid	10 - 15
3. History and Ethics of Nursing and Professional and Social Problems. (The humanities)	
E. History of Nursing (sometimes given together and sometimes separately).	20 - 30

	Recommended No. of hours
E. Ethics of Nursing (sometimes given together and sometimes separately)	20 - 30
R. Survey of Nursing Field and Related Professional Problems	20 - 30
R. Modern Social and Health Movements (sometimes called Social Economy, Social Legislation, Social Medicine, or Public Health)	20 - 30

APPENDIX F.2

The Duties and Responsibilities of Professional Nurses.

Under this heading is given list of first types and cases to which nurses should be prepared to give general nursing care.

(a) According to age, sex, and social status:

1. All cases from infants up.
2. Men and women, boys and girls.
3. People of any rank, class or condition.

(b) According to state or degrees of illness:

1. The normal (especially from the standpoint of hygienic care and prevention).
2. The mildly ill, chronic and convalescent.
3. The acutely ill, operative cases, accident cases, etc.

(c) According to type of disease or condition:

1. Medical diseases - all common types.
2. Surgical diseases - all common types, including gnaecological cases.
3. Diseases of infants and children.
4. Obstetrical cases (nursing care only, not midwifery practice).
5.* Mental and nervous diseases.
6.* Diseases of the eye, ear, nose and throat.
7.* Communicable diseases, including tuberculosis, veneral diseases and skin diseases.
8.* Orthopaedic conditions.

Types of duties required in the general practice of nursing

(a) Duties concerned with keeping people well.
Attention to bathing, feeding, clothing, exercise, rest, etc.
Protection against disease. Special emphasis on care of babies, prenatal care of mothers, etc.

(b) General nursing care of sick persons.

Same as preceding with special reference to bathing the sick, making them comfortable in bed, lifting, carrying etc.

(c) Housekeeping and household sanitation.

Cleaning and care of rooms and furnishings, disinfection, ventilation, disposal of wastes, etc.

(d) Organisation and management of sick room or ward.

Carrying out ward routines and regulations, caring for patient's belongings, organising duties in a systematic way, supervising other workers, etc.

(e) Equipment and Supplies.

Care, preparation, storing and disinfection of dressings, bandages, rubber goods, linen, blankets, household supplies, instruments, apparatus, etc.

* Such cases as are commonly found in general hospitals and out-patient departments.

(f) Food and diet.

Preparing and cooking simpler foods for well and sick. Working out dietaries, and administration of special diets.

(g) Medication and drugs.

Preparation and use of all common disinfectant and antiseptic solutions. Administration of medicines by mouth, by hypodermic, etc.

(h) Therapeutic treatments

Administration of hot and cold applications, baths, enemata, douches, etc. Bandaging, rubbing, sunbathing,

light therapy etc. Preparation for and assistance with medical and surgical treatments administered by physician, such as operations, dressings, examinations, etc. First aid in emergencies.

(i) Observation of patients reporting and recording.

Taking of pulse, temperature, respiration. Collecting specimens. Keeping charts, taking orders, writing up reports, etc. Observation of conditions causing or complicating disease such as bad housing and insanitary conditions, etc.

(j) Social and personal adjustments.

Understanding and managing sick people, getting their point of view and making necessary adjustments. Assisting in home and community relationships. Co-operating with social and health agencies, etc.

(k) Teaching

Giving patients and their friends needed information about health and simple nursing care, especially teaching mothers about the care of themselves and their children.

(l) Professional adjustments.

Helping to maintain good standards of nursing service, assisting in organisations, co-operating with professional associates, including physicians, social workers, etc.

APPENDIX G

CURRICULUM OUTLINES FOR NEW ZEALAND BASIC NURSE TRAINING PROGRAMMES 1945 - 1977

G 1) Instructional Course for Nurses and Syllabus of Subjects for Examination under the Nurses and Midwives Act 1945.

G 2) Course of Training and Instruction for Nurses - 1958

G 3) Outline of The Curriculum Guide - For General and Obstetric Nurses - 1966

G 4) Nursing Council of New Zealand Supplementary Instructions - 1977 General Obstetric Nurse Programme

APPENDIX. G.1.

General and Obstetric Nurse Curriculum - 1945.

[FIRST SCHEDULE

INSTRUCTIONAL COURSE FOR NURSES AND SYLLABUS OF SUBJECTS FOR EXAMINATION UNDER THE NURSES AND MIDWIVES ACT 1945

FIRST SUBJECT: ELEMENTARY ANATOMY AND PHYSIOLOGY

(Twenty-four hours)

THE subdivisions and systems of the human body.
The cellular structure of the body.
Bones and joints in general; the skeleton and the principal joints.
The principal groups of muscles.
The gross anatomy, minute structure, and functions of the nervous syst
The special senses.
The blood vascular system; the circulation of the blood.
The blood and the haemopoietic tissues.
The lymph vascular system.
The respiratory system.
The alimentary system; digestion and absorption in the alimentary ca
The skin; the regulation of body temperature.
The urinary system; micturition and defaecation.
The endocrine organs.
Metabolism; nutrition and diet; the vitamins.
The reproductive system.

SECOND SUBJECT

A. First Year: Nursing

The Hospital.—What it is and what it is organized to do.

Nursing.—Its value and place in the community.

The Patient.—The patient as an individual and the effect of illness on behaviour; position as guest of the hospital; nurse's duty towards patients.

The Nurse's Duty Towards Relatives and Friends of Patients.—Towards hospital staff; hospital property.

Qualities Required in a Nurse.—General guidance as to management of life as a nurse.

Admission of Patient.—Reception and welcome; bed; bath; observation; care of clothes and valuables; duty of nurse towards relatives.

The Bed and Bedmaking.—Types of beds; mattresses, pillows, use and protection of; bedmaking for various conditions; making beds for various positions, recumbent, dorsal, prone, lateral, Fowler.

Personal Cleanliness of Patient.—Changing of sheets; dressing and undressing of patient in bed; making an occupied bed; the bed sponge; care of the mouth, teeth, nails, hair; washing of hair in bed; prevention of bedsores; giving and removal of bedpans and urinals; importance of regularity of defaecation; changing mattress of occupied bed; pediculosis; prevention of spread in ward and treatment of.

Comfort: Sources of Physical Comfort.—Uses of air and water pillows, bed-rests, sand bags, cradles, hot water bags. Support in various positions; value of change of position, and of arm and leg movements; correct method of lifting and turning patients. Prevention of foot drop. Use of bed tables and lockers. Ventilation, etc.

Sources of Mental Comfort.—Harmony in wards, nurse's attitude to work and patients; rest; sleep; quiet; privacy; how to ensure these.

Observations of Patients.—Importance of habit of observation; nature of symptoms and physical signs; significance of posture; types of cry in children; pain; condition of tongue and mouth; skin; mental state. Temperature, pulse, and respiration; general understanding of normal and abnormal; methods of taking and recording temperature, pulse, and respiration. Care of thermometers and stands. Collection of specimens of urine, faeces, sputum, vomitus; observations to be made in each case. Collection of uncontaminated specimen of urine from adult and child; collection of twenty-four-hour specimen. Tests for albumin and sugar in urine. Observation of fluid intake. Handling of nasal and throat swabs. Delivery of specimens for examination.

Records.—Value of clinical charts and other records; importance of accuracy and of hospital standing orders. Ward reports, purpose and importance of; how to write.

The Convalescent Patient.—Importance of this stage; psychological problems which may be present; value of occupational therapy; getting patient up in chair; observations and precautions necessary.

Discharge of Patient.—Importance of this stage; routine procedures.

Children.—Daily care of, including bathing (not infants); diaper changing, observations to be made; precautions regarding unrecognized infections; precautions in restricting movements of children; care of infant's feeding bottles and teats.

Application of Heat.—Hot water bottles; medical fomentation; linsee poultice; antiphlogistine; heat cradles.

Application of Cold.—Ice bags; cold compresses.

Other Local Applications, etc.—Starch poultices; adhesive plaster simple ointments; steam inhalation.

Enemata.—Uses and types; method of giving cleansing, carminativ anthelmintic, emollient enemata, observations to be made. Proctoclysi Use of rectal tube. Tray and preparation of patient for rectal examina tion.

Surgical Procedures.—Preparation for and administration of vagin douche; aseptic care of vulva and perineum; dressing of simple wound tray for vaginal examination.

Bandaging.—Purpose, types, rules and methods of application of com monly used bandages.

Ward Emergencies (instruction sufficient for a first year nurse to giv first aid treatment in ward).—Fainting, epileptic seizure, haemorrhag rigor, fire; how to give artificial respiration.

Unconscious Patients.—Special points in nursing, sufficient for first yea nurse.

Nursing Care of the Dying.—Toilet; comfort; responsibilities and attitud of nurse to patient and relatives.

Nursing Care of Body After Death.—Duty towards relatives; standin rules regarding notification of death; care of personal clothing an valuables.

Night Duty.—Preparation of patient and ward for night; responsibilitie of night staff.

Patients for Operation.—Responsibilities of junior nurse; serving of earl breakfast and importance of this. Measures taken to prevent chill i transport; making of operation bed; safe custody of jewellery, denture etc.; attention to bladder pre-operatively.

Care and Economy of Equipment.

B. Second Year: Nursing Procedures

In all procedures in which the nurse is fully responsible the followin to be included: "Preparation of equipment, preparation of patient, tech nique of procedure, precautions, termination, and care of equipment"

If the doctor is responsible for treatments, include "Preparation an care of equipment; understanding of working of equipment; othe responsibilities of nurse".

Physical Examination.—Examination of chest, abdomen, limbs, centra nervous system, eyes, ears, nose and throat, gynaecological examinatior

Medical Aseptic Technique.

Inhalations.—Steam inhalations; steam tents; oxygen therapy.

Artificial Respiration.—Use of respirators.

Throat Treatments.—Gargles; paints; sprays.

Ear Treatments.—Swabbing; drops; irrigation.

Nasal Treatments.—Sprays; drops.

Eye Treatments.—Irrigation; drops.

Collection of Specimens.—Throat, nasal, and vaginal swabs; faeces sputum; blood; pus from wounds; care of specimens; delivery fo examination.

Catheterization.

Injections.—Hypodermic; intramuscular; intravenous.

Proctoclysis, Hypodermoclysis, Venoclysis.

Venesection and Blood Transfusion.

Lumbar Puncture.

Artificial Pneumothorax.

Surgical Aseptic Technique.—Preparation of dressings; wound dressing technique, including multiple wounds; care of drainage tubes and packing; care of tracheotomy tubes and wounds; removal of clips and sutures; surgical fomentations; arm and leg baths; saline baths for burns.

Preparation of patient for operation, including skin and area of operation.

Local Applications.—Evaporating lotions; glycerine and ichthyol; Unna's paste; Scott's dressing; magnesium sulphate dressings; mustard plaster; turpentine stupe. Use of heat cradles and infra-red lamps.

Operation Room Procedure:

Hygiene of theatre; hygiene of theatre personnel; care of patient in anaesthetic room; care of patient in theatre; positions used during operation; preparation of the nurse; hands; use of gloves; gown and mask; duties regarding counting of swabs, packing, etc.

Preparation and Sterilization of theatre material, dressings, sutures, rubber; gum elastic; wax; powder; ointments; bowls, etc.; special and ordinary instruments; use of autoclaves.

Duties in relation to anaesthesia; general, local, spinal, intravenous, and rectal; ice anaesthesia; preparation of patient and trays; management of patient during and after administration of anaesthesia.

Instruments used in various operations.

C. Third Year

Uses of Splints and Bradford Frame.—Application of splints and traction apparatus; care of patients in splints, traction and plaster casts; application and removal of plaster of paris.

Diagnostic Tests.—Specimen of gastric juice; gastric analysis; liver efficiency tests; glucose tolerance test; basal metabolic rate test; renal function tests; X-ray examinations; barium swallow meal and enema; cholecystography; X-ray of bronchial tree and lipiodol injections; intravenous and retrograde pyelogram; laryngoscopy and bronchoscopy.

Light Therapy, X-ray and Radium Therapy.—Nurses' duties in relation to these; preparation and after-care.

Stomach Lavage.—Gastric suction.

Colonic Lavage.

Bladder Irrigation and Instillation of Medications.—Tidal drainage.

Artificial Feeding.—Nasal, oral gastrostomy.

Paracentesis.—Thoracic and abdominal.

Injection of Varicose Veins and Haemorrhoids.

Use of Tampons, Pessaries, Suppositories.

THIRD SUBJECT: BACTERIOLOGY AND HYGIENE

(Twelve hours)

A. First Year

General Introduction.—Value of knowledge to nurses in preventive and curative aspects of nursing. Brief historical review to illustrate progress and to show relation to public health.

General Type of Infectious Agent.—Introduction to the study of bacteria; forms and size; where bacteria are found; reproduction; spore formation; factors influencing growth; pathogenic and non-pathogenic bacteria.

Relation of Bacteria to Disease.—Virulence; invasion of tissues of the body; bacterial toxins; some diseases caused by bacteria.

Destruction of Bacteria.—Natural agencies; physical agencies; chemical agencies.

Principles of Resistance.—Defences of the body; importance of resistance; a general understanding of the subject of immunity as it applies to the nurses' own health.

Transmission of Bacteria.—Contact infections; droplet-borne and dust-borne infections; portals of entry to the body.

Prevention of Transmission of Bacteria.—Meaning of cross-infection; prevention of contact; droplet-borne and dust-borne infections; importance of general ward hygiene; ventilation; cleaning; disposal of refuse; care of soiled linen, etc.

B. Second Year

Classification of Bacteria.

Immunity.—Natural and acquired; factors influencing natural immunity; methods of producing artificial immunity; passive immunity; various diagnostic and susceptibility tests; blood culture and chemistry; sedimentation rates; cell counts.

Health Regulations Regarding Prevention of Infection in the Community.—Water; milk; food; refuse; infectious diseases.

Demonstrations (to accompany lectures in first year)

(1) *Test* bacterial content of water. Contaminate and pasteurize milk.

(2) *Inoculate* culture medium with pus-infected instruments, used thermometers, blanket dust, hands, cough, nose and throat cultures, washbasins.

(3) *Observe and discuss* growth of bacteria and the effect of sterilization and disinfection on same.

Equipment

Slides to indicate different types of bacteria; culture media; diagrams; films; textbooks.

FIRST SCHEDULE—*continued*

FOURTH SUBJECT: INDIVIDUAL AND COMMUNITY HEALTH

(Eight hours)

A. First Year

Personal Health.—Application to the nurse's health in hospital:
What is meant by optimum health; its relation to successful living; health of the nurse; how to maintain and promote health through health examination, education, practice, and healthful environment.
Health Examination and Supervision of Personal Health: Purpose of initial and regular health examination; immunization, weight, reporting of minor illnesses; prevention of colds, etc.

Personal Health Practices (particularly related to the nurse).—General appearance, hair, uniform, shoes and stockings, use of cosmetics, general cleanliness and tidiness; hands and nails; posture and its relation to good general appearance and personality; dietary habits; special adjustments to meet new situations in hospital and nurses' home—e.g., rest, sleep, mental health; regular bowel elimination; recreation and exercise; application of personal health practices to daily care of patients.

The Patient as an Individual.—His position as guest in the hospital; the effect of illness on the behaviour; the adjustment of patient to his illness and to hospital; the nurse's duty towards the patient in these aspects.

The nurse's duty towards the relatives and friends of patients.

B. Second Year

The Family Unit.—The patient as a member of a family; the family health; social factors influencing family health.

What Sickness means to the Family—e.g., the sick child, mother, or father, and the effect of their illness on the family unit; the effect of the family situation on the recovery and rehabilitation of the patient.

Community Health.—Agencies in the health field.

The branches of nursing which have developed to meet these needs; the scope of each and the possibilities for the future.

Visits of observation, if possible.

FIFTH SUBJECT: HISTORY OF NURSING

(Eight hours)

A. First Year

Origin of Nursing.—Ethical basis in Christianity and religious orders.

Decline of nursing standards and measures taken to improve them; humanitarian reforms.

The development of modern nursing through the Nightingale School.

FIRST SCHEDULE—*continued*

B. Second or Third Year

The beginnings and developments in nursing education in New Zealand
The introduction of State registration, examination, and inspection.
The history of the Nurses and Midwives Board, and *the New Zealand Registered Nurses Association.*
Development of social medicine in New Zealand and the place of the Nurse in the various fields.
Superannuation for Nurses.

SIXTH SUBJECT: DIETETICS, NUTRITION, AND DIET IN DISEASE

A. First Year

Invalid Cookery and Service of Food

(Ten hours)

Theory—
Introduction to invalid cookery and service.
Food service to the sick: Preparation of tray, patient, nurse, feeding of helpless patients; removal of tray.
General food service in wards.
General ward diets: Full, light, liquid, etc.
Importance of obedience to instruction.
Storage of ward and patients' supplies—e.g., milk and fruit.

Practical Work.—Setting of trays: Preparation and serving of—
Tea, coffee, and iced water. Care in handling of ice and source of supply of this.
Fresh fruit—e.g., grapefruit, and of orange, or lemon drink.
Thin bread and butter, toast, and twice baked bread.

Theory.—Correct methods of cooking starchy and protein foods according to the effects of heat upon them.

Practical Work.—Preparation of—
Starch Foods: Benger's Food, Farex, arrowroot, oatmeal, porridge, and gruel.
Sugary Foods: Fruit jellies.
Egg Preparations: Coddled, poached, and scrambled eggs. Boiled and baked custards. (Standard recipes.) Egg drinks—e.g., egg flip.
Soups: Beef tea. Care in reheating.
Milk Preparations: Hot and cold milk drinks. Milk jelly. White sauce and cheese sauce. (Standard recipes.)
Attractive salads, using fruit and vegetables, cooked and uncooked and dried fruits.
Wholemeal sandwiches with nutritious fillings. Emphasis on children's teas.

Theory.—Pasteurization and sterilization and their effect on milk.

Practical Work—
Pasteurization and sterilization of milk.
Preparation of various types of junket.
Preparation of milk soups and drinks, using both whole and skimme

FIRST SCHEDULE—*continued*

Practical Work—
Preparation and serving of meat.
Grills.
Liver: Minced liver and tomato soup. Liver and bacon.
Preparation and serving of fish.
Steamed and baked fish.
Oysters: Creamed and in soup, and whitebait.
Theory.—Modern methods of cooking green vegetables.
Practical Work.—Vegetable cookery—
Correct cooking of spinach, cabbage, silver beet, or any seasonable green vegetable. Cooking of sow-thistle greens (raraki, puha) in areas serving Maori population.
A vegetable and cheese dish.

B. Second Year

Nutrition

(Ten hours)

Second Year: Theory

Normal Nutrition: Carbohydrates, Proteins, and Fats—
Importance of knowledge of nutrition.
Brief survey of foods recommended for daily use by the League of Nations Technical Commission.
Brief outline of the state of nutrition in New Zealand. Ref. "Lecture Notes on Normal Nutrition", p. 4.
Classification, sources, and functions of carbohydrates.
Classification, sources, and functions of proteins.
Sources and functions of fats.
Disadvantages of excess carbohydrates, especially sugar, and fat in the diet.
Cooking of starchy foods and of meat, fish, and eggs—Revision.
Revision of digestion absorption and metabolism of carbohydrates, proteins, and fats.
Mineral Salts, Calcium, Phosphorus, Iron, and Iodine, other Mineral Elements—
Functions of calcium, phosphorus, iron, and iodine. Food sources of each. Results of deficiency of these; rickets, osteomalacia and carious teeth, iron deficiency anaemias and simple goitre.
Geography of iodine deficiency in New Zealand and reasons for iodine deficiency in soil and food.
Standards for daily requirements of each.
Other mineral elements. Acid base equilibrium. (Briefly.)
Loss of minerals in cooking.
The Vitamins in General.—Importance, with particular reference to New Zealand. History of discovery—
Functions.—Symptoms of deficiency; food sources; destruction and loss; standards of daily requirements of each of the following vitamins—
Vitamin A: Fat soluble. Relationship with carotene.

FIRST SCHEDULE—*continued*

Vitamin C: Water soluble. Ascorbic acid. Revision of cooking vegetables.
Vitamin D: Fat soluble. Relationship with sunlight, calcium, a phosphorus. Necessity for cod liver oil or sunlight for pre-sch children and pregnant and lactating women.
Vitamins E and K: Functions and food sources only.
The Fuel Value of Food—
The calorie. The caloric requirements of the body. Influencing a determining factors.
Basal metabolism.
The Nutritive Value of Common Foodstuffs—
Revision of functions of protein, carbohydrate and fat, calcium, ph phorus, iron and iodine, vitamins A, B_1, B_2, C, and D.
Value of common foods, especially those mentioned in the da dietary pattern.
Effect of milling on food value of cereals. Value and use of wheatge Extraction rate of New Zealand flour.
Criticism of common New Zealand meals.
Scientific Standards for Diets—
The daily dietary pattern for New Zealand. Ref. "Lecture Notes Normal Nutrition", p. 9.
League of Nations Technical Commission. Ref. "Lecture Notes Normal Nutrition", p. 7.
National Research Council recommendations.
Daily standard allowance of calories, protein, and (reference on carbohydrates and fat, calcium, iron, iodine, vitamins A, B_1, complex, C, and D.
Adequate diet for all age groups (including children, adolescents, adults) and for pregnant and lactating women.
Economic menu planning.
Faults of the New Zealand Dietary.—Dietetic errors in New Zeala Results of dietary errors—
Nutrition films and film strips to be shown on such subjects as "I for Teeth", "Results of Good Nutrition", "Dietary Deficie Diseases and Their Results".

C. Second or Third Year

Diet in Disease

(Six hours)

In each case the general principles governing the construction of diet should be taught, together with the description of the diet or used for the condition, including that for convalescent and ambula patients when necessary.

Introductory—
Types of Diet met with; Examples of condition for which Each T used (general description only): Low residue or smooth diets; residue; high protein; low protein; high vitamin; high calorie; calorie; low fat; low carbohydrate; high carbohydrate; alkaline

Fevers—
Fevers of great intensity and length.
Typhoid and tuberculosis contrasted.
Fevers of short duration.
Cardiac Failure.
Alimentary System.—Stomatitis; gastritis; peptic ulcer.
Constipation: Atonic and spastic; how to avoid having to give aperients to ward patients; diarrhoea; dysentery; ulcerative colitis; mucous colitis (spastic colon).
Diseases of gall bladder, liver, pancreas. Coeliac disease.
Diabetes.
Nephritis.—Diets used in different types of nephritis.
Diet in Anorexia.—Special meals for conditions associated with difficulty in swallowing; special points to ensure adequate calorie intake; tube feeds.
Obesity, anaemia, iron deficiency; pernicious and secondary anaemia; goitre; allergy; common offending foods; principles of elimination diets.

Each nurse will spend ninety-six hours in practical work on diet therapy either in the special diet kitchen or in the ward kitchen.

SEVENTH SUBJECT: MEDICAL NURSING

Second Year

(Twelve hours)

Theoretical Instruction—

(*a*) Nursing related to doctor's lectures should cover the care of patients with various diseases and disorders described. It will not be necessary to give a detailed account of the nursing care in each particular condition; certain basic patterns can be outlined and special points stressed in relation to particular illnesses. Guidance should also be given to students in health teaching, instruction of patients and relatives regarding care after discharge from hospital—e.g., in diabetes, anaemias, etc. Nursing classes should also include adaptation of technique and equipment for use in the home.

(*b*) Nursing procedures and techniques used are to be demonstrated and explained, demonstration being followed by practice by students. These classes should be arranged so that teaching of a procedure follows closely the treatment of a disease for which it is employed.

Observation; Significance of signs and symptoms.—Case reporting. Cause, signs and symptoms, nursing treatment, the social implications of the disease and the rehabilitation of the patient, with incubation, isolation periods, and methods of spread where applicable to be given in the following diseases—
Diphtheria; scarlet fever; measles.
Influenza; whooping cough; mumps; chickenpox; hepatitis.
Cerebro-spinal fever; encephalitis; acute poliomyelitis.
Ophthalmia neonatorum; puerperal fever; erysipelas.
Typhoid; dysentery; gastro-enteritis; undulant fever.
Impetigo; scabies; pediculosis; ringworm; athlete's foot.

Tuberculosis; erythema nodosum.
Gonorrhoea; syphilis; soft chancre; including treatment, preventiv and social measures.
Skin Diseases: Seborrhoea; acne; eczema; dermatitis; psoriasis; herpe warts; corns; urticaria.
Diseases due to Parasites: Malaria; intestinal parasites; filaria; hydatid
Rheumatism: Rheumatic fever; rheumatism in childhood; chorea rheumatic heart disease.

Third Year

(Twelve hours)

Diseases of Lower Respiratory Tract.—Bronchitis; asthma; pneumonia pleurisy; empyema; bronchiectasis; malignant disease.

Diseases of the Circulatory System.—Cardiac arrhythmia; congenit disease; endocarditis; myocarditis; pericarditis; congestive heart fai ure; coronary occlusion; hypertension; diseases of the blood vessels.

Disorders of Blood and Blood Forming Organs.—Anaemias; leukaemia lymphadenoma; haemophilia; glandular fever.

Diseases of the Alimentary Tract.—Stomatitis; gingivitis; dyspepsia gastritis; peptic and duodenal ulcer; haematemesis; constipatio diarrhoea; colitis; jaundice; malignant disease of alimentary tract.

Diseases of the Urinary System.—Nephritis; uraemia; pyelitis; cystitis.

Diseases of the Musculo-skeletal System.—Fibrositis; arthritis.

Diseases of the Nervous System.—Meningitis; encephalitis; paralys agitans; cerebral haemorrhage; embolism and thrombosis; brain absce and tumours; epilepsy; migraine; disseminated sclerosis; spinal-co degeneration; neuritis; sciatica; neuralgia; functional nervous di orders; mental hygiene.

Disorders of Metabolism and Deficiency Diseases.—Vitamin deficienc diseases; obesity; gout; chilblains; diabetes mellitus.

Disorders of the Endocrine Glands.—Dysfunction of the thyroid; para thyroids; adrenals; pituitary glands.

EIGHTH SUBJECT: SURGICAL NURSING

Second Year

(Twelve hours)

Outline to be Followed.—Diseases and conditions requiring surgica treatment; causes, signs, symptoms, complications, and surgical procedur involved; special features of the nursing care; where applicable first ai treatment, preventive measures, and rehabilitation procedures.

Inflammation.—General consideration; local; regional; general; specifi

Ulceration.—Specific and non-specific.

Gangrene.

Sinus, Fistula.

Wounds.—Classification and tissue healing.

Haemorrhage.

Syncope.—Shock and collapse.

Burns and Scalds, Skin Grafting.

Anaesthesia.—Classification; dangers; nurse's responsibilities in preparation of patient for anaesthesia; after-care.

The Operation Patient.—Preparation for operation; after-care; post-operative complications.

THIRD YEAR

(Sixteen hours)

Musculo-skeletal System.—Sprains, strains, and dislocations. Fractures and amputations. Bone grafts. Infection of bone: osteomyelitis, tuberculosis, common deformities.

Chest Surgery.—Chest wounds, surgery of lungs.

Breast.—Mastitis, tumours, surgery of breast.

Circulatory System.—Surgery for heart conditions; phlebitis; thrombosis; embolism; varicose veins and haemorrhoids.

Alimentary Tract.—Lips, mouth, and tongue; hare lip and cleft palate; cancer.

Abdomen.—Abdominal injuries; surgery of stomach; intestinal obstruction; appendicitis; peritonitis; herniae; carcinoma of bowel; surgery of rectum; hydatid disease of liver; cholecystitis; gallstones.

Genito-urinary System.—Surgery of kidneys, ureters, bladder, and prostate gland.

Head and Spine.—Wounds of scalp; injury to brain; fractures of skull; craniotomy; spinal-cord tumours; laminectomy.

Neck.—Surgery of thyroid gland and glands of neck.

Gynaecology.—Abnormalities of menstruation. Infection of female genital tract; pelvic tumours and uterine displacements; uterine haemorrhage.

OPHTHALMIC NURSING

(Three hours)

Eye Defects.—Muscular, refractive, injuries. Educative and preventive measures.

Diseases of lids; lachrymal apparatus; conjunctiva; cornea; iris; lens.

Operations.—Special points relating to operations for cataract, glaucoma, detached retina, strabismus, enucleation.

NINTH SUBJECT: EAR, NOSE, AND THROAT NURSING

(Three hours)

Ear.—Deafness, its causes and prevention; otitis media and mastoiditis.

Nose and Sinuses.—Inflammation; epistaxis; defects of septum.

Throat.—Tonsillitis; quinsy; laryngitis; laryngeal obstruction; oesophageal obstruction.

TENTH SUBJECT: MATERIA MEDICA AND PHARMACOLOGY

(Ten hours)

FIRST YEAR

Weights and Measures.—Metric and apothecaries systems; household equivalents; use of Roman and Arabic numerals; fractions; ratios and percentages. Practice in measuring in each scale and converting from one to the other.

Solutions.—Saturated, isotonic, hypertonic, hypotonic, suspensions; practice in breaking down stock solutions to weaker strengths.

Disinfectants and Antiseptics.—Chemicals used and strengths employed—
Coal tar derivatives.
Oxidizing agents.
Salts of metals.
Halogen group.
Other solutions.
Gaseous disinfectants.

Medications.—Administration of medicines by mouth; prescriptions; custody of drugs; medicine cupboard; Dangerous Drugs Act; records; care and economy in the use of drugs.

SECOND YEAR

Definitions.—Classification of drugs according to effects in body.

Dosage of commonly used drugs.

Actions of drugs; local, general, regional, primary, secondary, idiosyncrasy, tolerance, cumulative action.

Modes of administration; oral, sublingual, rectal; injection, intradermal, hypodermic, intramuscular, intravenous, intrathecal; inhalation, inunction.

Drugs used in treatment of communicable diseases and surgical conditions, especially antibiotics and sera.

Drugs acting on—
Respiratory system.
Circulatory system.
Alimentary system.
Excretory system.
Nervous system.

Specific drugs used in treatment of diseases listed under medical and surgical nursing.

Toxicology of above-mentioned drugs.

Poisons.—Classification; signs and symptoms and general principles of treatment in acute and chronic poisoning.

ELEVENTH SUBJECT: PAEDIATRIC NURSING

(Twelve hours)

The children's ward, physical arrangements, safety precautions (baths, stairs, windows, heaters, electrical apparatus, drugs, etc.), and special equipment for children.

Admission of children to hospital; visitors.

Effect of illness on children, effect of hospital environment.

Importance of observation of signs and symptoms.

Growth and development, physical, mental, and emotional.

Management: Home environment; hygiene of infancy and childhood; infant's daily schedule, training and habit formation; play and play material, importance of affection and understanding of children by parents and nurses.

Behaviour Problems: Temper tantrums, enuresis, etc.

The nutritional needs of infants and children, breast feeding, artificial feeding, general principles of modification of cow's milk for infant feeding, caloric requirements according to age, making milk mixtures, supplementary feeding after six months.

Management of feeding of infants and children, problems, vomiting.

Motions in infancy, normal and abnormal, constipation and diarrhoea.

Nursery and children's ward technique, prevention of cross-infection, bathing infants.

Adaptation of nursing procedures for care of infants and children—e.g., admission procedure, physical examination, obtaining specimens of urine and faeces, rectal and throat swabs, etc., administration of medicines, enemas, techniques for lumbar puncture, subcutaneous and intravenous administration of fluids, preparation for operation, and after-care.

Special ailments of infancy, hare lip and cleft palate, pyloric stenosis, intussusception, talipes, pink disease, thrush, convulsions, napkin rash, eczema.

PERIODS OF TRAINING

The course of practical training in nursing is to cover a period of 146 weeks over the full course. The minimum periods of training in each of the following services shall be:

	Weeks
(*a*) Medical and chronic nursing	30
(*b*) Surgical, gynaecological, orthopaedic, eye, ear, nose, and throat nursing	34
(*c*) Operating theatre	6
(*d*) Outpatients	2
(*e*) Children	10
(*f*) Infectious disease and tuberculosis nursing	16
(*g*) Diet kitchen	2
	100

The remaining 46 weeks may be spent in any of the services.

The maximum aggregate periods in the following during the total period of training, shall be:

	Weeks
(*a*) Tuberculosis ward (in two periods)	16
(*b*) On night duty	24
(*c*) In block	26]

The First Schedule as printed above was substituted for the original First Schedule by regulation 19 (*a*) of the Nurses and Midwives Regulations 1947, Amendment No. 1.

APPENDIX G.2.

General and Obstetric Nurse Curriculum. 1958.

FIRST SCHEDULE Reg. 7(1)

COURSE OF TRAINING AND INSTRUCTION FOR NURSES

THEORETICAL TRAINING

	Hours
Public Health and Social Services—	
Public health and social services	20
Psychology and mental hygiene	20
Nursing Arts—	
Nursing	120
Obstetrical nursing (as in Part B of the Fifth Schedule hereto)	50
Paediatric nursing	20
Medical and surgical nursing and specialties	150
Geriatric nursing	10
Nursing Sciences—	
Anatomy and physiology, Biochemistry, Microbiology, Nutrition, Pharmacology	120
Profession of Nursing—	
Nursing trends and professional responsibilities	20
Ward Administration	6

NOTE—The hours specified above are only approximate, and shall be carried out with due regard to regulation 7 (3) of these regulations.

FIRST SCHEDULE—*continued*

CLINICAL EXPERIENCE

(Minimum Requirements)

	Weeks
Introduction to nursing	12
Obstetrical nursing	18
Medical nursing	16
Surgical nursing	15
Eye, ear, nose, and throat nursing, Urological nursing, Orthopaedic nursing	16
Gynaecological nursing	6
Geriatric nursing	6
Communicable disease nursing, including tuberculosis	6
Operating theatre nursing	8–12
Outpatients or casualty nursing, or both	4
Public health or district nursing, or both	4
Diet department experience	2
Paediatric nursing	12

Night duty: No longer than twenty-four weeks shall be spent on night duty during the period of training, and no longer than twelve weeks shall be spent on night duty at any one time.

NOTE—The weekly periods specified above shall be carried out with due regard to regulation 7 (3) of these regulations.

Human Growth and Development

Genetics.
Embryology.
Physical growth and the process of ageing.
Anatomy and physiology.
Nutrition.
Behaviour and its normal variations.

Health and the Community

Sociology.
Microbiology.
Health education.
Personal, family, and occupational health.
Community services—Health.
Social.
International health.

Health and Illness

Basic needs for health.
Cause of illness.
Disease processes.
Clinical manifestations.
Therapy (including pharmacology and principles of diet therapy).

Nursing Studies

Fundamentals of nursing.
Public health nursing.
Obstetric/paediatric nursing.
Medical/surgical nursing.
Psychiatric nursing.
Disaster nursing.
Planning for patient care.
Problem solving in nursing.
Medico-legal aspects of nursing.
Principles of administration and teaching applied to nursing.
Professional responsibilities and trends.

Recommended Allocation of Time to the Theory of

	Minimum Hours
Accident, emergency, and disaster nursing	15
Administration and teaching	12
Anatomy and physiology	100
Diet therapy	12
Fundamentals of nursing	155
Geriatric nursing	12
Health and illness	10
Health and social services	8
Health education	5
International health	7
Medical and surgical nursing (general)	200
Medical and surgical nursing (specialties)	70
Medico-legal aspects of nursing	4
Microbiology	20
Nutrition	10
Obstetric nursing	90
Paediatric nursing	20
Patterns of human behaviour	25
Personal, family, and occupational health	15
Pharmacology	30
Physical aspects of growth and process of ageing	15
Planning for patient care	6
Problem solving in nursing	10
Professional responsibilities and trends	30
Psychiatric nursing	12
Public health nursing	10
Sociology	15
Total	918

Minimum study days = 156

Total minimum hours available = 156 days × 8 hours = 1,248 hours.

Maximum study days = 176

Total maximum hours available = 176 days × 8 hours = 1,408 hours.

Recommended Clinical Experience (General Nursing)

	Minimum Weeks	Time Hours
Maternal and Child Health—		
Obstetric nursing (to include five deliveries) ..	18	576
Paediatric nursing	12	384
Community Health	4	128
Should include experience in *at least* two of the following:		
Public health nursing; district nursing; infant welfare nursing; occupational health nursing; outpatients' services; other community health services; home visit follow-up; family study.		
Medical/Surgical nursing	60	1,920
To include general experience in acute medical and surgical wards (male and female), casualty or accident and emergency departments and operating theatre; genito-urinary nursing. (50 percent of time to be allocated to medical nursing and 50 percent to surgical nursing, including a minimum of 2 weeks in operating theatre nursing.)		
Optional clinical experience	8	256
To include specific experience in wards or special units related to at least two of the following clinical areas:		
Intensive care nursing; psychiatric or psychopaedic nursing; gynaecological nursing; genito-urinary nursing; ophthalmic and ear, nose, and throat nursing; orthopaedic nursing; geriatric nursing; operating theatre nursing; public health nursing; diet department.		
Total	102	3,264

NOTES: See page 8.

Recommended Clinical Experience (Male Nursing)

	Minimum Weeks	Time Hours
Maternal and Child Health—		
Emergency nursing (planned supervised experience in all clinical areas of obstetric nursing including assistance with at least one normal delivery) ..	1	32
Paediatric nursing	12	384
Community health	4	128
Should include experience in *at least* two of the following areas:		
Public health nursing; district nursing; infant welfare nursing; occupational health nursing; outpatients services; venereal disease clinic; other community health services; home visit follow-up; family study.		
Medical/Surgical nursing	77	2,464
To include general experience in acute medical and surgical wards (male and female), casualty or accident and emergency departments and operating theatre; genito-urinary nursing. (50 percent of time to be allocated to medical nursing and 50 percent to surgical nursing, including a minimum of 6 weeks in operating theatre nursing.)		
Optional clinical experience	8	256
To include specific experience in wards or special units related to at least two of the following clinical areas:		
Intensive care nursing; psychiatric or psychopaedic nursing; ophthalmic and ear, nose, and throat nursing; orthopaedic nursing; geriatric nursing; operating theatre nursing; public health nursing; diet department.		
Total	102	3,264

NOTES: See page 8.

Recommended Clinical Experience (General and Male Nursing)—*continued*

(a) It is recommended that the first 4 weeks of clinical experience after the introductory period should be selected and supervised by the tutorial staff and comprise learning experiences in one of the four main clinical areas.

(b) In the latter part of the third year, the student should be given 4 weeks' supervised experience in administration and teaching in a ward or a department.

(c) Night duty should be kept to a minimum. Because of the limited opportunities for supervised learning on night duty a student should not be required to undertake more than 24 weeks night duty during the total period of training.

The above minimum clinical hours have been worked out on a 32-hour week, the other 8 hours being allowed for the study day. The theoretical programme covers a minimum of approximately 32 weeks, or 156 days of 8 hours each which allow for 1,248 hours. Appropriate adjustments can be made for a "block system".

Twelve weeks have been allowed for annual leave.

A period of 10 weeks has not been allocated for any specific purpose. This time, together with any additional time not used for meeting minimum clinical requirements, is available for students' specific educational needs.

APPENDIX G. 4.

NURSING COUNCIL OF NEW ZEALAND
SUPPLEMENTARY INSTRUCTIONS - 1977

GENERAL/OBSTETRIC NURSE PROGRAMME

AIM

To prepare a person within a hospital service based programme to practice in general hospital situations.

OBJECTIVES

In situations where health needs are predominantly associated with physical health, the registered general nurse will be able to:

1. Identify and define specific nursing problems and in collaboration with the individual(s) concerned, plan, implement and evaluate nursing care appropriate to the needs of that person.

2. Use knowledge from nursing and related studies in the planning and provision of nursing care.

3. Contribute a specific nursing component to the activities of the health team by assisting in the creation and maintenance of an environment that enables individuals and families to achieve realistic health goals.

4. Accept responsibility for personal nursing practice and lifelong education.

ORGANIZATION

The programme to be planned and implemented on the basis of:

Philosophy which:

1. is clearly stated.

2. is formulated, accepted and frequently reviewed by staff.

3. expresses beliefs of the staff concerning nursing and the teaching-learning process.

4. incorporates current concepts of nursing and education.

Organization Cont.

Aim and Objectives developed by the school to fit within the Aim and Objectives specified.

Objectives at all levels of the curriculum are to:

1. derive from the programme objectives.
2. form the basis for planning, implementation and evaluation of the curriculum.
3. identify behaviours expected of the beginning practitioner.

Curriculum which in plan and presentation:

1. identifies central themes which are interrelated and developed sequentially.
2. allows for integration of clinical and theoretical experiences.
3. includes course outlines which specify:

   course title and description
   objectives
   outline of content
   learning experiences for achievement of objectives
   evaluation methods.

4. is available in written form to tutors, students and Council.

Evaluation System which forms an integral part of the curriculum and incorporates:

1. A stated policy on evaluation of student progress which is made known to students on entry to and at intervals throughout the programme.
2. evaluation of student progress in terms of the specified competencies expected at different levels in the programme.
3. involvement of students in evaluation of their own theoretical and clinical performance.
4. provision for examinations to be conducted in accordance with Regulation 8 Nurses' Regulations 1973.
5. systematic and ongoing evaluation of the curriculum by tutors and students.

THEORETICAL CONTENT

STUDIES RELATED TO NURSING

These studies should provide the basis for and be directly related to the Nursing Studies content of the programme. The time allocation for each component will be determined by the particular themes of the curriculum although the sum total must not be less than 25% of the total theoretical content.

Physical and Biological Sciences

Relevant aspects of:

- Anatomy and physiology
- Chemistry and biochemistry
- Mathematics
- Microbiology
- Nutrition
- Pharmacology
- Physics

Behavioural and Social Studies

Relevant aspects of:

- Communication
- Epidemiology
- Health Care Systems
- Human Growth and development
- Psychology
- Sociology
- Social Anthropology

NURSING STUDIES

These must constitute not less than 50% of the total theoretical content.

The curriculum will provide students with opportunities to develop knowledge, skills and attitudes essential for the planning and provision of effective nursing care for individual persons and groups in a variety of situations where health needs are predominantly associated with physical health.

Each school will develop units of nursing studies consistent with its curriculum plan. These may be specific to the curriculum or may follow traditional subdivisions such as body systems or clinical areas.

Each unit of nursing studies will provide learning experiences related to the role of the nurse in the prevention and treatment of common health problems and disease states specific to that particular area of nursing. It will also develop the students understanding of the influences on nursing practice of the following

- the process of change
- stage of the life cycle
- level of illness or wellness
- personality and life style
- effect of the disease process
- personal and social coping resources
- the setting in which care is given

Total Theoretical Content	
Minimum Hours	1,200

CLINICAL EXPERIENCE

Clinical experience must be related to a specific unit of the programme. In order to obtain the required experience, students may be assigned to the specified area of patient care or, on a patient assignment basis, to the care of patients who are, for instance, acutely or critically ill or who have geriatric or psychiatric health problems, although they may be receiving care in general medical-surgical areas. For a student's experience to be designated as of a particular clinical category, the patients nursed must not only have health problems within the particular category but their nursing care plan must also be oriented to that particular facet of their health problem. In addition, the student gaining the experience must be responsible to a nurse qualified in the appropriate area of nursing.

EXPERIENCE	HOURS
Basic Nursing	
The first 400 hours of nursing experience during and following Introductory School* in which application is made of beginning knowledge in nursing. It can take place in any clinical area in nursing but may not be recorded as experience in a particular clinical area.	400
Medical Nursing	
To include a variety of experiences in acute and specialist medical nursing.	1000
Surgical Nursing	
To include - a variety of experiences in acute and specialist surgical nursing - accident and emergency nursing - 80 hrs. minimum - operating theatre nursing - 80 " "	1000

* Introductory School is defined as the period in which the student is introduced to nursing. It constitutes the period at the commencement of the programme, during which time the student has no commitment to nursing service, learning experiences in relation to the programme being under the control of the school of nursing.

Clinical Experience Contd.		Hours
Family and Child Health Nursing		
To include a minimum of:		
paediatric nursing	160 hours	
obstetric nursing	320 hours	480
Community Health Nursing		
To include 120 hours in domiciliary nursing and remaining time in any one or a number of the following agencies: health centres, outpatients clinics, occupational health clinics, or any agency in which nurses are engaged in full time nursing practice i.e. with plunket nurses, practice nurses, public health nurses etc.		240
Geriatric and/or Rehabilitation Nursing		240
Psychiatric Nursing		
To include a variety of experiences which may be obtained through outpatient clinics, day care centres, specialist clinics, psychiatric units and psychiatric hospitals.		240
	Total Hours Clinical Experience	3600
Elective Experience		
May be theoretical and/or clinical nursing experience appropriate to the student's choice		— 432

TOTAL PROGRAMME HOURS

	Hours
THEORETICAL CONTENT	1200
CLINICAL EXPERIENCE	3600
ELECTIVE EXPERIENCE	432
TOTAL HOURS	5232

Note: Hours are calculated for a 3 year programme in accordance with a 5 day, 40 hour week. The programme may not exceed 3 years and only the hours included within the 40 hour working week may be considered in assessing hours for theoretical and clinical experience.

APPENDIX H

SAMPLE EXAMINATION PAPERS

APPENDIX H.1.

CASE STUDIES

Case studies constitute a most valuable part of a student's learning but only if they are used to advantage.

All students should be encouraged to take out case histories embodying the total care of the patient, i.e., physical, mental, social, and economic aspects, and for these to be of value the student must present her study to a class discussion which is an ideal method of teaching and learning.

It is important that the case for study should be carefully chosen and only those cases which can form part of a student's present learning should be selected; the unusual or rare case should be the subject of a study after graduation when it may be presented as part of an inservice education programme.

PLANNING A STUDY DAY

Most study days allow for approximately six hours of work and these should be planned most carefully to maintain a correct balance for good learning.

It is suggested that not more than two formal lectures should be given on any one study day and that the remainder of the time should be spent in formal or informal discussions, demonstrations, clinics, role playing, assignments, and planned study. Field visits may also form part of a study day.

The best results are achieved when the student herself is motivated to learn by reading, case studies, assignments, and projects. It is not possible, nor is it wise, to try to teach everything in the syllabus.

THE STUDENT MUST TAKE RESPONSIBILITY FOR HER OWN LEARNING BUT SHE MUST HAVE HELP IN PLANNING HER WORK

SAMPLE EXAMINATION QUESTION—*Medical*

Mr John Paterson is 23 years' old. Since his marriage 18 months ago he has been working long hours as a panelbeater at the local garage. He has managed to pay off the first instalment of a new house where he lives with his wife and four-weeks-old baby.

Two weeks ago he began to have persistent headaches which interfered with his work. A visit to his local doctor showed that he also had an abnormally high-blood pressure, albumen in his urine, and a certain amount of anaemia. In view of this, he was admitted to hospital for investigation of a chronic nephritic condition.

1. Indicate by (✓) which three of the following conditions might have predisposed to a primary attack of nephritis:

Subacute bacterial endocarditis.
Virus pneumonia.
Tonsillitis.

Meningococcal meningitis.
Poliomyelitis.
Scarlet fever.
Tetanus.

State the reason for your choice .....

2. Name two parts of the kidney involved in chronic nephritis:

(1) .....

(2) .....

3. The following renal function tests were performed by the laboratory to confirm the diagnosis.

Complete the following sentences:

(a) Urea clearance test which indicates the amount of ..... cleared by the ..... in a certain time.

(b) T.N.P.N.: the total amount of ..... in the .....

(c) Specific gravity fixation test, a ..... test which indicates the ..... and ..... power of the kidney.

4. Indicate by (✓) which of the following statements are correct:

(a) After an initial week's rest in bed John was encouraged to participate in ward activities, though his blood pressure still remained higher than normal.

(b) Albuminuria was estimated daily by using an Esbach's test.

(c) As no oedema was present a low salt diet was indicated.

(d) The renal function tests showed some kidney damage, but a moderate amount of protein was allowed in his diet.

(e) An accurate record was kept of fluid intake and urinary output.

(f) John was encouraged to drink at least 3,000 c.c. of fluid daily.

(g) John's blood pressure was recorded and charted daily.

5. For what purposes were the following drugs prescribed in the treatment?

Mist. potassium citrate .....

Ferrous sulphate tablets .....

6. John fully understood the problems and prognosis of his illness through discussions with his doctor.

(a) After his discharge from hospital, what physical symptoms might he be warned to report to his doctor?

(i) .....

(ii) .....

(iii) .....

(iv) .....

(v) .....

(b) He is advised by his doctor to change to a lighter occupation in the meantime. What steps could be taken to help him secure a lighter occupation?

.....

.....

.....

(c) Mrs Paterson, who is learning to look after a new baby, is worried about cooking for her husband as he has been advised by his doctor to have a low protein diet with moderate salt restriction, and an extra intake of fluids. How could you advise her?

.....

.....

.....

(d) The medical social worker in your hospital is an important member of the health team. Suggest two ways in which she could assist in the rehabilitation of John Paterson.

(i) .....

.....

.....

(ii) .....

.....

.....

SAMPLE EXAMINATION QUESTION—*Surgical*

Mr Simpson, a healthy young man of 28, married with one child and in business on his own account as a carrier, is admitted to your hospital at 10 p.m. as an urgent case with a diagnosis of strangulated right-inguinal hernia. His general condition is good.

1. In your opinion, what are the symptoms that are likely to have caused Mr Simpson to have called in his doctor?

2. Mr Simpson's hernia is an inguinal hernia. Name three other varieties of hernia, according to the position in which they occur.

(1) .....

(2) .....

(3) .....

3. What is the meaning of the term "strangulated" as applied to a hernia, and what dangers to the patient result from a hernia becoming strangulated?

4. Mr Simpson's surgeon decides on urgent operation and orders the theatre to be ready in half an hour. (a) What area of skin would you prepare; (b) What method of skin preparation would you use; (c) What other pre-operative preparation would you expect to carry out?

(a) .....

(b) .....

(c) .....

5. Mr Simpson's operation was successfully carried out under general anaesthesia with nitrous oxide and oxygen supplemented by ether (the intestine was returned to the abdomen, the hernia operation completed, and the wound closed). If you are detailed to "special" him on his return to the ward, what would you regard as your particular duties until such time as he fully regains consciousness?

6. If you were in charge of the ward on night duty on Mr Simpson's return to the ward, what points would you particularly observe about his case from the point of view of your entries in the night report?

7. According to the practice of your hospital, what steps would you take in connection with the care of the bowels, post-operatively and during Mr Simpson's convalescence?

8. What complications would you be especially on the look-out for: (a) during the first 72 hours; (b) during the ensuing 10 days?

(a) .....

(b) .....

9. What observations might lead you to suspect that occurrence of a haematoma or sepsis in the wound?

10. Prior to Mr Simpson's discharge from hospital:

(a) What advice would you expect him to be given by his surgeon;

(b) If his wife asks you about any special precautions she should encourage him to take, what advice would you give?

(a) .....

.....

(b) .....

.....

APPENDIX H.2.

NURSES AND MIDWIVES BOARD

(Examination) State Examination in Nursing*

(Subject) SURGICAL NURSING*

* These particulars must be entered on the cover of the answer-book used for each section

7th June, 1951

Time allowed: Three hours

ALL questions **must** be attempted. **Candidates should answer briefly and concisely only what is asked**

Each section must be answered in a separate book

SECTION A*

1. A case is admitted to the ward with a diagnosis of ruptured ectopic gestation:—

   (*a*) What signs and symptoms would you expect in this patient?

   (*b*) What are the pre- and post-operative treatments?

   (20 marks)

2. What are the essential differences between a simple and a compound fracture? Describe the principles of the treatment of a compound fracture of the tibia.

   (20 marks)

3. What complications may occur following an operation of thyroidectomy?

   (10 marks)

[TURN OVER

SECTION B*

4. Describe the pre-operative and post-operative treatment of a patient undergoing prostatectomy.

(20 marks)

5. State what you know of the following:—

(*a*) Penicillin in the treatment of wounds.

(*b*) Antiseptics used in the preparation of the skin for operation.

(20 marks)

6. State the important differences between simple and malignant tumours. Illustrate by one example of each.

(10 marks)

850/3/51—15435]

APPENDIX H.3

Candidate's Examination Number_____(not name)

NURSES AND MIDWIVES BOARD

STATE EXAMINATION FOR NURSES

(FINAL PROFESSIONAL)

SURGICAL NURSING

7 JUNE, 1961.

Time allowed: Three hours

ALL QUESTIONS MUST BE ANSWERED

The total marks for this paper equal 300. Final marks will be issued as a percentage of 100.

Answers should be as concise as possible, and must in each case be completed within the space provided. You may sometimes find the space more than you need, but allowance has been made for differences in size of handwriting.

MARKS

QUESTION ONE

This question has 6 sections (A, B, C, D, E, F). The marks for each section are shown in the left hand column.

Mrs Jones is 72 years of age. She is being admitted to hospital in a critical condition. She has a strangulated umbilical hemia.

10 **Section A.**

(a) What is a hemia?

(b) What is a strangulated hemia?

(c) List two factors that predispose to umbilical hemia in a woman of Mrs Jones' age.

1.

2.

12 **Section B.**

Mrs Jones arrives at the ward accompanied by her elderly husband.

(a) What are the important aspects of her nursing care during admission?

Candidate's Examination Number_____

MARKS

(b) What important signs and symptoms would you expect Mrs Jones to have?

10 **Section C.**

The doctor examines Mrs Jones.

(a) He immediately commences gastric aspiration, and intravenous glucose and saline. What is the purpose of each of these treatments?

MARKS

(b) He also orders the following drugs to be given immediately. Give the value of each drug in this instance, and state by what route each is administered.

Pethidine, 100 mgms.

Penicillin, 500,000 units.

12 **Section D.**

Mrs Jones is to have an urgent abdominal operation. Detail her pre-operative nursing care from the time the doctor charts the operation, until she is left in the theatre anaesthetic room, 30 minutes later.

Candidate's Examination Number _____

MARKS

Section E.

Anaesthesia is induced with thiopentone (pentothal). It is maintained with nitrous oxide and oxygen, supplemented by cyclopropane. What are the advantages of this anaesthetic for this patient?

10 **Section F.**

The surgeon operates to see the extent of Mrs Jones' trouble.

(a) What kind of operation will he probably continue to do?

(b) How can any nurse in the operating theatre best assist the surgeon during this operation?

MARKS

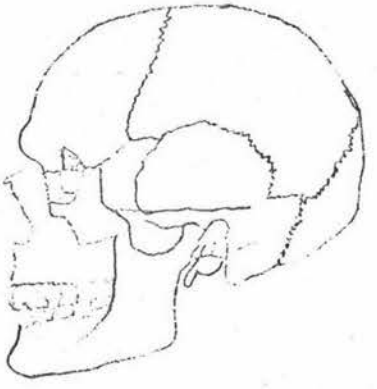
QUESTION TWO

This question has 5 sections (A, B, C, D, E). The marks for each section are shown in the left hand column.

The following questions test your understanding of patients with head injuries.

11 **Section A.**

Below is a diagram of the skull as seen from the left side. Label the individual bones shown in this diagram.



8 **Section B.**

Indicate by a tick (✓) which is the correct statement.

The cerebral cortex is part of
( ) (a) the third ventricle.
( ) (b) the thalamus.
( ) (c) the cerebral hemisphere.
( ) (d) the between brain.

The pituitary gland is attached to the floor of
( ) (a) the lateral ventricle.
( ) (b) the thalamus.
( ) (c) the third ventricle.
( ) (d) the cerebral cortex.

The spinal cord is continuous with
( ) (a) the cerebral hemisphere.
( ) (b) the medulla oblongata.
( ) (c) the cerebellum.
( ) (d) the pons.

The spinal theca is part of
( ) (a) the pia-arachnoid.
( ) (b) the spinal cord.
( ) (c) the spinalcanal.
( ) (d) the dura mater.

Candidates Examination Number.....

Section C.

(a) Where are the cardiac, respiratory, and vaso motor centres of the brain found?

(b) What is the function of the thalamus?

(c) What is the function of the cerebellum?

(d) Explain the secretion of cerebro-spinal fluid.

(e) What are the functions of cerebro-spinal fluid?

(f) How may a specimen of cerebro-spinal fluid be obtained?

(g) What is the appearance of normal cerebro-spinal fluid?

MARKS

9 **Section D.**

If you think a statement is true, draw a circle around the T.
If you think a statement is false, draw a circle around the F.

In each instance give the reason for your answer.

(a) The escape of cerebro-spinal fluid down the nose of a patient who has a head injury, indicates a fracture of the middle fossa of the base of the skull.

T F

Reason:_____

(b) The escape of cerebro-spinal fluid from the ear of a patient with a head injury, indicates a fracture of the vault of the skull.

T F

Reason:_____

(c) Swelling of the occiput due to the escape of blood under the scalp of a patient with a head injury, indicates a fracture of the posterior fossa of the base of the skull.

T F

Reason:_____

20 **Section E.**

(a) What observations would you make of a patient who has been admitted to hospital with a serious head injury?

Candidate's Examination Number_____

ARKS

(b) What is the value of prompt and accurate recording of these observations?

(c) What complications are likely to occur in a patient who has a head injury? How may a nurse recognise the onset of each?

MARKS

QUESTION THREE

This question has 4 sections (A, B, C, D). The marks for each section are shown in the left hand column.

Congenital pyloric stenosis is an important reason for abdominal surgery during infancy.

10 **Section A.**

(a) Describe the anatomical abnormality present in this condition.

(b) Describe a baby with severe symptoms of congenital pyloric stenosis.

Candidate's Examination Number_____

MARKS

8 **Section B.**

What medical treatment may be tried in a mild case of congenital pyloric stenosis?

36 **Section C.**

(a) Name and describe the operation which is usually performed to correct this condition.

(b) State how an infant admitted to hospital in fair condition, should be prepared for this operation.

(continued)

MARKS

343

(c) You are on duty when this infant is returned to the ward from the operating theatre at 3 p.m. Use the chart provided and write a typical afternoon report about him.

Date	Time	Condition	Remarks

Candidate's Examination Number_____

ARKS

(d) Briefly discuss the important aspects of his subsequent nursing care.

(continued)

MARKS

6 Section D.

Why is it advisable for this infant to be sent home as soon as possible?

Candidate's Examination Number_____ 346

MARKS

QUESTION FOUR.

This question has 5 sections (A, B, C, D, E). The marks for each section are shown in the left hand column.

Mr Blank is 40 years of age. He is married and has three children aged 9, 11, and 14 years. He is a city schoolteacher.

Mr Blank has been in hospital for several weeks. He has primary carcinoma of the right lung. The surgeon has explored his chest but the lesion is inoperable. Mr Blank has had a course of deep X-ray therapy.

Section A.

(a) What are the possible causes of carcinoma of the lung?

(b) What are the early signs and symptoms of this condition?

(c) How is lung carcinoma diagnosed?

2 ### Section B.

(a) What are the likely reasons for giving Mr Blank deep X-ray therapy?

MARKS

347

(b) What discomforts may be associated with a course of this treatment, and what can be done to help prevent and relieve each of these?

20 **Section C.**

The doctor thinks Mr Blank will probably live for another three months. He would like him to go home, provided his wife can manage with the help of the district nurse.

(a) What are the advantages of this patient being nursed at home?

Candidate's Examination Number_____

IKS

348

(b) What are the possible disadvantages? State briefly what can be done to overcome each of these.

MARKS

(c) What information should the District Nursing Supervisor be given about Mr Blank?

18 **Section D.**

Mr Blank goes home. He is very glad to be there. His condition deteriorates to the stage where he is too ill to get up. The district nurse is now calling twice daily.

What is the role of the district nurse in a situation such as this?

Candidate's Examination Number_____

350

MARKS

4 Section E.

If financial assistance is needed, what are the possible ways of getting it for this family?

MARKS

QUESTION FIVE

This question has 4 sections (A, B, C, D). The marks for each section are shown in the left hand column.

Miss Blue is 28 years old. She is an assistant in a large department store. She has had varicose veins of both legs for several years.

Miss Blue is in hospital, and has just returned from the operating theatre to the ward where you are the senior nurse. She has had a general anaesthetic and the saphenous veins of both legs were "stripped".

20 **Section A.**

(a) A first year nurse on duty asks you what is meant by a general anaesthetic. How will you answer this question?

(b) Taking advantage of her interest in this patient, you ask her to explain to you about the structure of a vein, and the flow of blood in a vein. What information will you expect her to give you?

Candidate's Examination Number_____

(c) What can you tell her about the difference between a healthy vein and a varicose vein?

(d) The nurse asks you the following questions; give your reply to each question.

"What causes varicose veins?"

"Do they only occur in the legs?"

"What do they do when they "strip" veins?"

MARKS
15

Section B.

Miss Blue has regained consciousness. Discuss the important aspects of her nursing care during the first 24 hours post-operatively.

Candidate's Examination Number_____

MARKS

10

354

Section C.

Miss Blue has three wounds in each leg; one at the ankle, one behind the knee and one in her groin. One of the wounds in the groin becomes infected.

(a) List six possible sources of infection in the operating theatre.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

(b) List four of the most likely sources of infection in the ward.

1. _____

2. _____

3. _____

4. _____

(c) What ways do you know of cleaning and healing such a wound?

MARKS
15

Section D.

(a) Discuss in detail, Miss Blue's post-operative ambulation and exercises. Why are these aspects of her nursing care important?

(b) What advice should she be given before she goes home?

APPENDIX I

Timelines

(a) To show Main Events and Personalities affecting New Zealand

(b) To show the Main Economic and Social Events occurring over the same time period.

TIMELIN

to show main events and personal

YEAR	ADVANCES AND DEVELOPMENTS IN NURSING	PERSONALITIES
1840's	Early hospitals under control of Master and Matron	
1850's		
1860's		
1870's		
1880's		
1882		Dr Graham appointed first Inspector of Hospitals
1883	First Nightingale nurses arrive in New Zealand	Mrs Bernard Moore bega first Nightingale Scho of Nursing in Wellingt
1884		
1889	Certification courses begin at Wellington Hospital School of Nursing. Other Hospitals soon follow	
1890's		
1895		Mrs Grace Neill appoin Assistant Inspector of Hospitals Nurse Maud commences District Nursing in Christchurch
1899	Twenty-five nurses sent to Boer War	

fecting New Zealand nursing and health care systems

POLITICAL EVENTS AFFECTING NURSING AND HEALTH CARE SYSTEMS	GENERAL TRENDS IN NURSING
'irst hospital established in Auckland 1841 'irst colonial surgeon appointed - 1841 :n 1846 Government established hospitals .n Wellington, Wanganui and New Plymouth 1852 hospitals placed under control of 'rovincial Governments 1863 - Vaccination Act - all children under 6 months for smallpox 1871 - Public Vaccination Act - for smallpox 1872 - Provincial Boards of Health established to control public health 1872 - First division of St John's Brigade formed in Dunedin 1874 - Medical School in Otago advertised first Professorship 1875 - Mental Hospitals Department created 1876 - Provincial Boards of Health established and Central Board of Health established	1840-1900 - Introduction of Hospitals - Inception of Nurse Traini - Developing consciousness that State must safeguard social welfare of the community
1884 - Otago Hospital set aside beds for the mentally ill	
1890 - New Zealand Society for Blind established in Auckland 1895 - Nursing Corps of St. John Ambulance Association established	
1899 - Threat of Bubonic plague led to creation of Health Department	

1900		
1901	Nurses Registration Act - 3 years training with State examinations and the Register	1901 Act work of Grace Neill and Dr McGregor
1904	Midwifery registration	
1905	First private nursing association formed in Wellington Organised training for psychiatric nurses	
1906	Private nursing association formed in Dunedin	1906 Miss McLean repla Mrs Neill Miss Bicknell and Mrs Bagley appointed Nurse Inspectors
1907	(First Psychiatric Nurse State examination held (Plunket nursing commenced (First Occupational Health Nurse appointed in public work	1907 Sir Truby King commenced Plunket Soci
1908	First Maori girls become nurses Trained nurses conference Nursing Journal (Wai Tioki) established by Miss McLean	
1909	New Zealand Trained Nurses Association formed Private nursing commenced in backblocks - first nurse appointed to Uriti, Taranaki	1909 Miss Kendall President and Miss Bicknell secondary of N.Z.T.N.A.
1913	Small Nursing Corp established as part of Queen Alexandra Nursing Corp	1914 - 18 Miss Lewis established Red Cross and V.A.D.
1914	6 Nursing Sisters sent with troops to Samoa	
1915	N.Z. Army Service established	
1917	First nurses appointed to inspect schools	
1918		
		1919 Elizabeth Gunn st first health camp and Elsie Haines Matron of Dental Nurse School

1920	Division of nursing created	1920 - Miss McLean Director of Division of Nursing 1920 Margaret Copland first nurse appointed t Nuie Islands 1920 Miss Patrick traine Karitane nurses
1922	Nurses Memorial Trust established	1922 Miss Bicknell Director of Division of Nursing on Miss McLean' retirement
1923	Trained nurses conference recommends the establishment of a University programme for nurses	
1924	Nurses Association buys nursing journal	1923 Miss J. Moore sent overseas to study nursir administration and teaching
1925	Nurses and midwives Board created and system of obstetric training redrafting begun University programme commenced at Otago University	1924 Miss Lambie sent to Toronto to study public health
1926	Superannuation Act for nurses	
1927	Otago University programme fails Post Graduate School established at Wellington	
1928		1928 Mrs Dick appointed first Psychiatric social worker
1930	Obstetric training redrafted Private Hospitals eligible to become training schools if meet requirements of the Board	
1931	Small training schools close and Registered Nurses and nurse aides replace students Two year programme for nurse aides commenced	
1932	Tropical nursing services reorganised I.C.N. report on nursing - basic nurse education	1932 Miss Clark Editor of Nursing Journal 1932 Miss Bicknell retir and is succeeded by Miss Lambie
1934	Florence Nightingale Committee established	
1935	Fiji and N.Z. Nursing Service linked under the Department of Health	1935 Miss Bridges award Scholarship to London t study public health
1937		1937 Rockefeller Trvvel ing Scholarship to Miss Lambie to study in Nort America and Europe
1938	Superannuation Scheme for Government Nurses	
1939	Nurses to World War II	1939 Rockefeller Schola ship to Miss F Cameron to attend Post Graduate course in medical socia work 1939 Miss K Spensley first nurse appointed a medical social worker i Hospital

1940	Nurse Aid programme commenced	
1941	Free X-Ray, Physiotherapy, Laboratory and District Nursing services introduced	
1945	Provision for Registration of Male Nurses Psychiatric Act - State Registration came into force Basic Nurse Education Curriculum Revision	
1947	Post Graduate training course in industrial health Correspondence course begun in 1947 in industrial health	
1948	Salary Advisory Committee established for nurses	1948 Miss Menzies appoin first industrial nurse inspector
		1950 Miss E.M. Wallace first nurse to become a social worker
1952	Post Graduate course in T.B. nursing commenced National Womens Hospital established	1952 Dr Doris Gordon campaigned for maternity services for all women
1957	New curriculum guide	
1960	Community Nurse programme 18 month course commenced	
1961	Psychopaedic nurse registration Platt report on education in England has repercussions for New Zealand reciprocity	
1965	Fifth report with W.H.O. Expert Committee has implications for N.Z.	1965 Reid report on Pos Graduate nursing educat
1966	School Certificate prerequisite for nursing New curriculum guide for nursing	
1968		
1969	Department of Health review of Hospitals and related services	
1970	Carpenter report	1970 Dr Helen Carpenter report on basic nursing education
1971	Psychiatric - psychopaedic Hospitals under Hospital Board control	
1971	Nursing Council created under 1971 Act to replace Nurses & Midwives Board	
1972	Department of Education report on basic nurse education	
1973	Two pilot nursing programmes commenced in Technical Institutes	
1973	University programmes for nurses commenced Further Technical Institutes programmes commenced	
1974	Board of Health report on nursing services in N.Z.	
1977	Supplementary guide for General & Obstetric nurse programmes	

TIMELINE

Political, Economic and Social Events

YEAR	POLITICAL EVENTS	ECONOMIC AND SOCIAL BACKGROUND
1840's	1840 Treaty of Waitangi	
1850's	1852 Provincial Governments established	1852 Gold discovered at Waihi
1860's		1860 Gold discovered in Otago Maori Wars in Northland
	1867 Neglected children and Criminals Act (allowed control and supervision of children)	1867 Post Office Savings Banks established
1870's	1870 Vogel's Public Works Scheme begun to improve communications	1872 Public Trust Office established
	1876 Provincial Governments established 1877 Primary education made secular, free and compulsory	
1880's		1880's Depression
1890's	1892 Department of Agriculture established Factory and Shop Acts Leases in Perpeturity 1893 Votes for Women 1894 Department of Labour established 1898 Old Age Pensions	
		1899 Boer War
1900	1907 Child Welfare Act	1907 Free tuition at University if passed Metriculation exam with credit 1908 Main Trunk Railway line in North Island completed
1910		1914 Free places in secondary schools Free places in University if Metriculate School leaving age 14 years World War I
		1918 Workers Employment Association established
		1919 School Dental service commenced Child Welfare and Education Department endeavour to counteract increase in social problems.

1920's	League of Nations established	1920 Native Trust established
	1926 Family allowance for third child and over	1922 Correspondence School established
	1926 Unemployment relief	1926 Government Housing temporary scheme Radio Broadcasting begun
		1927 Rising unemployment
		1928 Electrification of homes Increase in motor car usage
	1929 Unemployment increases dramatically	1929 Hydro-electricity Rest Homes Act Earthquake
1930's	1930 Unemployment Act	1930 Hawkes Bay earthquake Depression sets in
	1936 State Advances Department established (Housing Corporation Department)	1934 School Certificate with 32 options introduced
	1936 Arbitration Court established	1937 Federation of Labour formed
	1936 Shop and Offices Act and Factories Act	1938 County library service and Council for Adult Education established
	1936 40 hour week	1939 Free education to 18 years
	1938 Social Security Act	1939 - 1945 World War II
	1939 Emergency Regulations (Wartime)	
1940's	1940 Family Benefit for second child	1940 Free apples in schools Increase in industries
	1941 Universal Superannuation Family Benefit for all children	1944 University Entrance accredited
	1946 Social Security payment increased	1946 Technical Correspondence Institute established
	1947 Arbitration Act United Nations founded	
1950's	1951 Public Offences Act	1951 Waterside Workers strike
		1958 Secondary industry increased and modified
1960's		1960 Technical Institutes established
		1962 Universities autonomous Export drive
1970's	1973 Accident Compensation Commission established	

BIBLIOGRAPHY

BIBLIOGRAPHY

Abdellah, F. & Levine, E. Better Patient Care Through Nursing Research. London: Macmillan Company, 1965.

Adams, E. To Be A Nurse. Philadelphia: W.B. Saunders Co., 1980.

Adams, P. "Safety with Outpatients" New Zealand Nursing Journal Vol. LXV: no. 11. November 1972, pp. 26-27.

A.H.H. "Loyalty and Unity." New Zealand Nursing Journal Vol. 1; no. 2, April 1908, pp 21-22.

Aitkens, H. "Lessen from Dover." New Zealand Nursing Journal. Vol. XXXIII: No. 10. October 15 1940, pp. 321-324.

Akita, A. "Environmental and social changes: the effects on nursing practice." International Nursing Review 26: 1. 1979. pp.10-16.

Allen, G. "Team Nursing" New Zealand Nursing Journal. Vol. LXIII: no. 9. September 1970. pp 5-9.

Allport, G. Bruner, J. "Fifty years of change in American Psychology." Psychology Bulletin 37; 1940 p.p. 757-776.

Anderson, E. "Fracture - dislocation of the 5th Cervical Vertebrae." New Zealand Nursing Journal. Vol. LX: no. I. January 1967 . pp. 6-8.

Arthurs, K. "We are all Guilty." New Zealand Nursing Journal. Vol. LXV: no. 1. January 1972, p.10.

Atkinson, A. "Occupational Therapy." New Zealand Nursing Journal. Vol. XXXVIII: no. 10. 15 October 1945. pp. 243-244.

Austin, R. "The Nurse Practitioner in Health Care." New Zealand Nursing Journal. Vol. 72: no. 3. March 1973. pp. 8-12.

Axford, N. "Modern Treatment of War Injuries affecting Limbs." New Zealand Nursing Journal. Vol. XXXIV: no. 7. July 15 1941. pp. 256-259.

Badouaille, M. "Why Nursing is Different." New Zealand Nursing Journal. Vol. 66; no. 7. July 1973. pp. 29-30.

Bagley, A. "The Nurses Larger Sphere." New Zealand Nursing Journal. Vol. V: no. 1. January 1912. pp. 21-25.

Balme, H. "Nursing as a Doctor Sees It." New Zealand Nursing Journal. Vol. XXI; no. 3. July 1928, p. 186.

Baly, M. Nursing and Social Change. London: William Heinemann Medical Books Ltd 1980.

Barnes, K. "Rest and Sleep: Their Importance in the care and treatment of the sick and how best they may be secured." New Zealand Nursing Journal. Vol. XLV: no. 1. February 15 1952. pp. 7-9.

Barnett, "The Nurse as a Health Educator." New Zealand Nursing Journal. Vol. VI: no. 1. January 1913. pp. 22-23.

Beaumont-Orr, "A Worried Patient and his Failure of Communication." New Zealand Nursing Journal. Vol. LIII: no. 11. November 1960. p. 9.

Beck, F. "The Responsibility of a Professional Nurses' Association for the Improvement of Nursing Service." New Zealand Nursing Journal. Vol. LIV: no. 5. May 1961 pp. 28-33.

Becker, H. "Space apportioned forty-eight topics in the American Journal of Sociology 1895-1930." American Journal Sociology Vol. 38; 1932, p.p. 74-78.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no. 1. January 1942, pp. 7-8.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no 2. February 1942, p.p. 42-43.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no. 4. April 1942, pp. 108-109.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no 5. May 1942, pp. 139-40.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no. 6. June 1942. pp. 172-173.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no 7. August 1942, pp. 202-205.

Bell, M. "Vitamins." New Zealand Nursing Journal. Vol. XXXV: no 9. October 1972, pp. 254-258.

Begg, N. "First Aid for Poisoning." New Zealand Nursing Journal. Vol. LVII. no. 13. December 1964. p. 30.

Bell, S. "Rehabilitation Pilot Scheme." New Zealand Nursing Journal. Vol. 66: no 12. December 1973. pp. 14-17.

Bennett, A. "A Scottish Woman in a Hospital Unit in Serbia." New Zealand Nursing Journal. Vol. XI: no. 3. April 1918: pp. 79-81.

Bennett, A. "Hygiene and Morality." New Zealand Nursing Journal. Vol. III: no. 4. October 1910, pp.152-158.

Berby, "Extract from Nurses Letters." New Zealand Nursing Journal. Vol. IX: no. 1. January 1916. pp.20-21.

Bertagoni A. "Treatment of Wounds." New Zealand Nursing Journal. Vol. XXXIII: no. 5. May 15 1911. pp.148-151.

Bevis, E. Curriculum Building in Nursing: A Process St Louis: C.V. Mosby Co. 1978

B.M.J. "Treatment of Shock." New Zealand Nursing Journal. Vol. XXXVIII: no. 8. 15 August 1945. pp 190-191.

Bolduc, R.A. "Nursing Care." New Zealand Nursing Journal. Vol. LI: no. 3. June 1958. pp. 125-128.

Bonney, V. "The Prevention of P rperal Fever." New Zealand Nursing Journal. Vol. XIV: no. 2. April 1921. pp. 63-65.

Boulby, A. "Care of the Wounded." New Zealand Nursing Journal. Vol. VIII: no. 2. April 1915.

Boumphrey, "The Paraplegic Patient." New Zealand Nursing Journal. Vol. LVII: no. 14. October 1964.pp. 10-11.

Bowlby, A. "Care of the Wounded." New Zealand Nursing Journal. Vol. VIII: no. 2. April 1915. p. 79.

Boyd, E. "...And Nurse Training." New Zealand Nursing Journal. Vol. LXV: no. 7. July 1972. pp. 12-19.

Bran, M." Pelvic Peritonitis." New Zealand Nursing Journal. Vol. II: no. 4. October 1909. p.175.

Bremner, A. "The Artificial Limb." New Zealand Nursing Journal. Vol. LV: no. 6. June 1962. pp. 5-9.

Bridges, D. "The Nurse of Tomorrow." New Zealand Nursing Journal. Vol. XLVIII no. 4. April 15 1954. p.p. 40-41.

Bridges, E. "The Block and Study Day System of Organising Practical and Theoretical Work." New Zealand Nursing Journal. Vol. XL: no. 1. January-February 1947. pp. 7-10.

British Medical Research Council. "The Prevention of Hospital Infection' of Wounds." New Zealand Nursing Journal. Vol. XXXV: no. 2. 15 August 1942. pp. 191-192.

Broe, E. "New Trends in Nursing Education." New Zealand Nursing Journal. Vol. LII: no. 4. August 1959. pp. 125-129.

Broe, E. "New Trends in Nursing Education". New Zealand Nursing Journal. Vol. LII: no 4. August 1959, pp. 125-129.

Broe, E. "Planning for the Future"- The Need for Research. in New Zealand Nursing Journal. Vol. LIV: no. 5. May 1961. pp. 21-27.

Brookes, J." Care of the Whole Person." New Zealand Nursing Journal. Vol. LXII: no. 3. March 1969. pp. 7-9.

Brooks, W. "Medical Knowledge for Nurses." New Zealand Nursing Journal. Vol. XLI: no. 5. August 15 1948. pp. 182-183.

Brown, D. "Proposed Changes in Basic Curriculum of Training for Nurses." New Zealand Nursing Journal. Vol. XLIX: no. 3. June 1956. pp. 105-108.

Brown, E. Nursing Reconsidered a study of change Philadelphia: J.B. Lippincott. 1970. Part I.

Brown, E. Nursing Reconsidered a study of change Philadelphia: J.B. Lippincott. 1971. Part II.

Brown, L. "Attempted Suicide." New Zealand Nursing Journal. Vol. LXIII: no. 1. January 1970. pp. 9-12.

Brownlee, J. "Burns." New Zealand Nursing Journal. Vol. XXXVI: no. 3. April 1943. pp. 101-102.

Buick-Constable, "Technological Change. Challenge to the Professional Nursing Association." New Zealand Nursing Journal. Vol. LXII: no. 8. August 1969. pp. 5-7.

Bullough B. & Bullough V. (ed). Expanding Horizon for Nurses. New York: Springer Publishing Company. 1977.

Burgess, M. "The Qualified Nurse." New Zealand Nursing Journal. Vol. LXV: no. 1. November 1972. p. 5.

Burgess. "Cod Liver Oil Treatment of Wounds." New Zealand Nursing Journal. Vol. XXXI: no. 1. January 15 1938. pp. 2-3.

Burton, T. "Why Educate?" New Zealand Nursing Journal. Vol. LXIII: no. 4. April 1970. pp. 4-5.

Burtt, E. "Employee Assessment of the Young and the Older Worker." Nursing Clinics of North America. Vol. 7: no. 1. March 1972, pp. 109-119.

Cameron, F. "Address by Miss M.J. Cameron O.B.E. on the New Curriculum." New Zealand Nursing Journal. Vol. XIIX: no. 3. June 1956, pp. 111-115.

Cameron, F. "What is Quality Nursing???" New Zealand Nursing Journal. Vol. LVI: no. 2. April 1963. pp. 11-15.

Cameron, F. "A Day in the Country with the District Health Nurse." New Zealand Nursing Journal. Vol. XXXIX: no. 1. January 15 1946, pp. 6-9.

Cameron, F. "Trends in Nursing Overseas." New Zealand Nursing Journal. Vol. XLVII: no. 4. August 16 1954, pp. 132-133.

Cameron, F. "Basic Curriculum - Application of Theory to Practice with Special Reference to Public Health and Prevention." New Zealand Nursing Journal. Vol. L: no. 4. August 1957. pp. 149-152.

Candau, M. "Smallpox - Constant Alert." New Zealand Nursing Journal. Vol. LVIII: no. 4. April 1965. p.5.

Candau, M. "The Nurse, Pioneer of Health." New Zealand Nursing Journal. Vol. XVII: no. 2. April 1954. p. 36.

Candille, M. "The Nurse and the Humanization of the Hospital." New Zealand Nursing Journal. Vol. LVI: no. 11. November 1963. pp. 5-7.

Carpenter, H. "Nurse Education Crticised." New Zealand Nursing Journal. Vol. LXIII: no. 10. October 1970. p. 5.

Carson, A. "Severe Burns - Case Study," New Zealand Nursing Journal. Vol. LIV: no. 12. December 1961. pp. 24-26.

Carter, G. "Extracts from 'Reconsideration of Nursing" New Zealand Nursing Journal. Vol. XXXIX: no. 11. November 15 1946, pp. 316-319.

Causley, N. " Nursing Care." New Zealand Nursing Journal. Vol. XXXI: no. 2. February 1939. pp. 62-64.

Chambers, M. " Proposed Changes in Basic Curriculum of Training for Nurses." New Zealand Nursing Journal. Vol. XLIX: no. 3. June 1956. pp. 105-107.

Chambers, M. " Presidential Address....Mrs M. Chambers." New Zealand Nursing Journal. Vol. LII: no. 3. June 1959. pp. 77-81.

Chater, S. " A Conceptual Framework for Curriculum Development." in Nursing Outlook. July 1975: pp. 428-433.

Champtaloupe E. " Bacteriological Methods." New Zealand Nursing Journal. Vol. IV: no. 4. October 1911. pp. 152-154.

Cherry, S. " Special Treatment of Gunshot Fracture." New Zealand Nursing Journal. Vol. IX: no. 3. July 1916. pp. 152-153.

Chisolm, M." Exposure Treatment: Curing the Badly Burned." New Zealand Nursing Journal Vol LIV no 8 August 1961 p.p.14-15.

Christensen, J. " Planning Nursing Care." New Zealand Nursing Journal. Vol. 69: no. 4. April 1976. pp. 3-7.

Christie, T. " Antiseptic and Asepsis." New Zealand Nursing Journal. Vol. VII: no. 1. January 1914. pp. 7-10.

Church. " Notes of a Lecture on Acute Rheumatism." New Zealand Nursing Journal. Vol. I: no. 4. October 1908. pp. 115-116.

Clements, M. "Communication and the Plunket Nurse." New Zealand Nursing Journal. Vol. LIX: no. 11. November 1966. p. 9.

C.M.R. "Refresher Course for Industrial Nurses." New Zealand Nursing Journal. Vol. XLIII : no. 6. October 15 1950. p. 195.

C.M.R. "Progress of Industrial Nursing in New Zealand." New Zealand Nursing Journal. Vol. XLIII: no. 2. April 15 1950. pp. 36-37.

Cohen, S. "Experience in Treatment of War Burns." New Zealand Nursing Journal. Vol. XXXIV: no. 1. January 15 1941. pp. 3-9.

Collett, P. "Why Patient Centered Care." New Zealand Nursing Journal. Vol. 70: no. 6. June 1977. pp. 25-27.

Colqhhoun. "The Past and Future of the Nursing Profession." New Zealand Nursing Journal. Vol. V: no. 4. October 1912. pp. 124-126.

Concise Oxford Dictionary. 6th Edition. Editor J.B. Sykes. Oxford: Clarendon Press, 1976.

Consedine, M. "Leadership - The Key to Intensive Education." New Zealand Nursing Journal. Vol. 73: no. 8. August 1980. pp. 3-15.

Corkill, M. "Bedside Care in the Home." New Zealand Nursing Journal. Vol. XXXIX: no. 3. March 15 1946. pp. 53-58.

Cruickshank, F. "Industrial Nurse." New Zealand Nursing Journal. Vol. XXXVI: no. 2. February 1943. pp. 29-32.

Darby, M. "The Marks of a Profession." New Zealand Nursing Journal. Vol LXII no. 12, December 1976, p.p. 11-12.

Davis, R. "The Occupational Health Nurse." New Zealand Nursing Journal. Vol. LII: no. 2. April 1959. pp. 55-56.

de Charms, R. & Moeller, G. "Values Expressed in American Children Readers 1900-1950." Journal Abnormal Social Psychology 66: 1961. p.p.136-142.

Denman, K. "Preventive Medicine for Student Nurses." New Zealand Nursing Journal. Vol. XLIV: no. 7. December 15 1951, pp.201-203.

Department of Health. "Drugs and the Child." New Zealand Nursing Journal. Vol. LXII: no. 3 March 1969, p. 26.

Department of Health. "Occupational Health Programme." New Zealand Nursing Journal. Vol. LVI: no. 10. October 1963. pp. 28-29.

Department of Health. "Rubella Vaccination." New Zealand Nursing Journal. Vol. LXIII: no. 1. January 1970. p. 28.

Department of Health. "Curbing of Air Pollution in New Zealand." New Zealand Nursing Journal. Vol. LX: no. 11. November 1967. p. 27.

Deprès, L. "Anthropological Theory, Cultural pluralism, and the Study of Complex Societies." Current Anthropody. Vol. 19: no. 1. 1968 pp. 3-26.

De Young, L. Dynamics of Nursing - 4th edition. C.V. Mosby. St. Louis. 1981.

Dock, L. & Stewart, I. A Short History of Nursing. Putnam New York. 4th edition. 1938.

Dolon, J. Nursing in Society: A Historical Perspective. Philadelphia: W.B. Saunders Co. 1973.

Du Gas, B. Introduction to Patient Care A Comprehensive Approach to Nursing. 3rd edition. W.B. Saunders Co. Philadelphia. 1977.

Donnelly, G., Mengel, A. & Sutterly, D. The Nursing System, Issues, Ethics & Politics. New York: John Wiley & Sons.1980.

Dooley, D. "Penicillin - Its Uses and History." New Zealand Nursing Journal. Vol. XXXIX: no. 12. December 15 1946. pp 334-342.

Downey, E. "Improved Interpersonal Communication." New Zealand Nursing Journal. Vol. 73: no. 10. October 1980. pp. 14-34.

Dunkley, P. "Woman and X-rays." New Zealand Nursing Journal Vol. 69: no. 1. January 1976. p. 18.

Dunn, H. "Fostering Ideal Relationships between Nurses Patients and Doctors." New Zealand Nursing Journal. Vol. LV: no. 6. June 1962. pp. 10-11.

Dworkin, C. "Spotlight on the Clinical Nurse Specialist." New Zealand Nursing Journal. Vol. 67: no. 3. March 1964. pp. 10-11.

E.B. "Bedside Care." New Zealand Nursing Journal. Vol. XXXII: no. 3. June 1939. p.204.

Education Committee of the New Zealand Registered Nurses Association. " Wound Dressing Technique." New Zealand Nursing Journal. Vol. XXXV: no. 2. 15 February 1942. pp. 39-41.

Eisdell. " Head Injuries." New Zealand Nursing Journal. Vol. XXXI: no. 3. March 15 1938. pp. 74-76.

E.M.L. " Case of Jacksonian Epilepsy." New Zealand Nursing Journal. Vol. VII: no. 4. October 1914. pp. 171-172.

Englefield, R. " Health Education Where Are You?" New Zealand Nursing Journal. Vol. 73: no. 3. February 1980. p. 26.

Evans. "The Greatest of These..." New Zealand Nursing Journal. Vol. LII: no. 1. February 1959. pp. 3-4.

E.W. " An Interesting Surgical Case." New Zealand Nursing Journal. Vol. XXX: no. 7. July 15 1937. pp. 157-158.

Falconer, M. " Head Injuries." New Zealand Nursing Journal. Vol. XXXVII: no. 11. November 1944. pp. 245-248.

Fawkes, B. " Recent Proposals for Development in Nursing Education in England and Wales." International Nursing Review. Vol. 17: no. 3. 1970. pp. 258-268.

Fieldhouse, A. " The Future of Basic Nursing Education in New Zealand." New Zealand Nursing Journal. Vol. LII: no. 3. June 1959. pp. 101-103.

Fogarty, C. " From 1900 to the Present." New Zealand Nursing Journal. Vol. 66: no. 2. February 1973. p.p. 23-25.

Ford, M. " Intensive Therapy Overseas." New Zealand Nursing Journal. Vol. LXI: no. 2. February 1968. pp. 7-8.

Fox, D. Fundamentals of Research in Nursing 2nd edition. New York: Appleton Century Crafts. 1970.

Francis, R. "B.C.G. Vaccination" New Zealand Nursing Journal Vol. XLV: no. 6. December 15 1952, pp. 201-203.

Friedman, H. Introduction to Statistics. New York: Random House. 1972.

Fryett, P. "Susan - A Paediatric Burn Patient." New Zealand Nursing Journal. Vol. 74: no. 4. April 1908, p.p. 7-9.

Frische, G.A. "Occupational Health Nursing" New Zealand Nursing Journal. Vol. 68: no. 3. March 1975. pp. 4-6.

Gardiner, B. "Our Responsibilities to the Person Beside the Respirator." New Zealand Nursing Journal. Vol. 71: no. 2. February 1978. pp. 7-11.

Gascar, P. "Putting Technology in its Place." New Zealand Nursing Journal. Vol. LXI: no. 11. November 1968. pp. 17-18.

Gilfillan, J. "The New Zealand Mobile Surgical Unit." New Zealand Nursing Journal. Vol. XXXIV: no. 11. November 15 1941. p. 266.

Gill, F. "Typhoid Fever." New Zealand Nursing Journal. Vol. 10: no. 3. July 1911. p. 125.

Gillies, A. "The Emergency Treatment of Hygiene of Muscles, Bones and Joints." New Zealand Nursing Journal. 15th Vol. XXXV: no. 7 August 1942. pp. 194-201.

Goodwin, P. "Lectures to Newly Qualified Staff Nurses." New Zealand Nursing Journal. Vol. LIII: no. 5. May 1960. pp. 13-21.

Goodwin, R. "Comfort as a Nursing Essential." New Zealand Nursing Journal. Vol. XXXVI: No. 2. February 1943. pp. 43-45.

Gordon, Dr. "The Nursing of Mental Care." New Zealand Nursing Journal. Vol. I: No. 4. October 1908, pp. 41-42.

Graham, A. & Sharp, A. "Educating Tom to take his Medication." New Zealand Nursing Journal. Vol. 74: no. 4. April 1981. pp. 13-17.

Green, J. "Accreditation in Nursing Education: New Trends and Responsibilities" Nursing Forum Vol. XIII: no. 1. 1974. pp. 4-15.

Griffin, J. & Griffin, J. 7th edition. History - Trends of Professional Nursing. St. Louis: C.V. Mosby Company. 1973.

Greenstreet, S. "Occupational Health Nursing in Community Health." New Zealand Nursing Journal. Vol. 71: no. 7. July 1978. pp. 3-4.

Guthrie D. "Shock Cradle." New Zealand Nursing Journal. Vol. XXXVI: no. 4. April 1943. pp. 77-78.

Hall, D. "Nurses View on Changing Care" in Verschure T. ed. Changes in Caring for Health. Aylesbury H.M. & M. Publishers. 1980.

Hall, T. "Tannic Acid Treatment for Burns." New Zealand Nursing Journal. Vol. XXX: no. 6. 15 June 1957. p.p. 108-109.

Hammond, T. "Teaching Relations How to Care for the Aged." New Zealand Nursing Journal. Vol. LVIII: no. 4. April 1965. p.9.

Hanan, J.R. "Address by the Minister of Health." New Zealand Nursing Journal. Vol. XLIX: no. 11. February 1956. pp. 25-27.

Hartmann, J.R. "Medical Care." New Zealand Nursing Journal. Vol. LI: no. 3. June 1958. pp. 121-125.

Hastings, A. "Safety...A Tutor Sister's View." New Zealand Nursing Journal. Vol. 65: no. 9. September 1972.p.p.29-30.

Hawarth, Z. "The Physiotherapists Part in the Science of Physical Rehabilitation." New Zealand Nursing Journal Vol. XXXIX: no. 2. February 15 1946. pp. 31-34.

Hayes, G." Emergency Seminar." New Zealand Nursing Journal. Vol. 74: no. 6. June 1981. pp. 27-37.

Health and Marine Departments Joint Committee, "Campaign for the Prevention of Blindness." New Zealand Nursing Journal. Vol. LV: no. 5. May 1962. p. 7.

Health Department Report "Editorial." New Zealand Nursing Journal. Vol. XXVI: no. 6. 15 November 1933. pp243-4.

Henderson, V. The Nature of Nursing. New York: McMillan 1964.

Henderson, V. Basic Principles of Nursing Care. Switzerland, Karger. 1969. p.37.

Henley, W.E. "Nursing in Tomorrow's Health Service." New Zealand Nursing Journal. Vol. LVII: no. 6. June 1964. pp. 5-9.

Herbert, A. " The Physical Treatment of the Wounded." New Zealand Nursing Journal. Vol. X: no. 1. January 1917. pp. 27-35.

Herbert, H. " Diptheria." New Zealand Nursing Journal. Vol.II: no. 3. July 1909. pp. 93-96.

Herz, M. "Asepsis." New Zealand Nursing Journal. Vol. 1: no. 3. July 1968. pp, 85-86.

Higgins, S. " Safety in the Water." New Zealand Nursing Journal. Vol. LVIII: no. 4. April 1965. p 13.

Hill, J., Burnham, J. Mack, D. & Silverwood, R. " Living Habits Influence Your Health." New Zealand Nursing Journal. Vol. LXI: no.1. January 1967. pp. 8-10.

Hines, G. " The Role of Psychology." New Zealand Nursing Journal. Vol. 66: no. 12. December 1973. pp, 4-7.

Holford, " The Role of the Nurse in Cure and Prevention." New Zealand Nursing Journal. Vol. XV: no. 4. November 1922. p 206.

Holloway, A."Patient Centered Nursing Care." New Zealand Nursing Journal. Vol. 68: no. 9. September 1974. pp. 14-16.

Holsti, O. Content Analysis for the Social Sciences and Humanities. Philippines: Addison-Wesley Publishing Co. 1969.

Hope, R. " First Aid Treatment of War Injuries of Eyes and Ears." New Zealand Nursing Journal. Vol. XXXV. no. 4. 15 April 1942. pp. 132-136.

Hopkins, R. " Spinal Injury Units and Rehabilitation." New Zealand Nursing Journal Vol. 71: no. 1. 1978. p.p.11-13.

Hopkins, R. "Spinal Injuries Nursing and the Nursing Process." New Zealand Nursing Journal. Vol. 74; no. 5. May 1981. pp. 24-25.

Hopkins, R. "In a Spinal Injuries Unit." New Zealand Nursing Journal. Vol. 69: no. 10. October 1975. pp. 20-21.

Horne, C. "Social Science and Educating Nurses." New Zealand Nursing Journal. Vol. 72: no. 3. March 1979. pp. 18-19.

Horn, D. "Decision Making 'Near the Bed". New Zealand Nursing Journal. Vol. 69: no. 10. October 1975. pp. 25-29.

Howard, S. "The Danger of Hot Water Bottles." New Zealand Nursing Journal. Vol. XLIII: no. 5. August 15 1950. pp. 148-150.

Hutchison, S. "Our Primary Function is Patient Care. Our Primary Role is Clinical." New Zealand Nursing Journal. Vol. 69: no. 7. July 1975. pp. 6-8.

Hydatid Research Unit. "Hydatids." New Zealand Nursing Journal. Vol. LIII: no. 2. February 1960. p 12.

Inglis. T. "Trained Nurses." New Zealand Nursing Journal. Vol. XXI: No. 5. November 1929. p. 157.

Inman. "Occupational Therapy." New Zealand Nursing Journal Vol. XXXIII: no. 11. November 15 1940. p 346.

International Council of Nurses. Stewart, I. Chairman, "Committee of Education of the International Council of Nurses." The Basic Education of the Professional Nurse. London: Queens Gate. 1934.

Irving, W. "Smallpox Vaccinations." New Zealand Nursing Journal. Vol. 2: no. 4. October 1909. p. 139.

J.A.M. "Postgraduate School of Nursing." New Zealand Nursing Journal. Vol. XXI: no. 1. January 1928. p. 9.

Jarrett, P. "Establishing Good Relations with the Press and other Media, and with the Public through such Media." New Zealand Nursing Journal Vol. LIV: no. 6. June 1961 pp. 22-23.

J.D.H. "With the District Nurse." New Zealand Nursing Journal. Vol. II: no. 1. January 1909. p.p. 23-24.

Jebson, J. "Intensive Care Room, Green Lane Hospital." New Zealand Nursing Journal. Vol. LVI: no. 12. December 1963. pp. 6-8.

JERRAM, C. "Radiation, Health and Safety." New Zealand Nursing Journal. Vol. LV: no. 4. April 1962. pp9-10.

J.M.G. "The Development of Personality as an aid to Efficient Nursing." New Zealand Nursing Journal. Vol. XX: no. 1. January 1927. p 9.

Johnson, D. "Development of a Theory: a requisite for nursing as a primary health profession." Nursing Research 23: September-October 1974. p.p. 372-377.

Johnson, D. "A Philosophy of Nursing" Nursing Outlook Vol. 7: no. 4, April 1959, p.p. 148-200.

Johnson, O. "Breathing Machine." New Zealand Nursing Journal. Vol. XXIV: no. 7. August 15 1941. pp. 262-265.

Jahoda, M. "Nursing as a Profession." New Zealand Nursing Journal. Vol. LIV: no. 5. May 1961. pp. 13-21.

Jollands, E. "Improving Patient Care." New Zealand Nursing Journal. Vol. 67: no. 3. March 1974. pp. 11-14.

Jones, Z. "Life on Board Hospital Ship." New Zealand Nursing Journal. Vol. VIII: no. 2. April 1915. pp. 106-107.

Kaperick, D. "The Nurse - as a people helper." New Zealand Nursing Journal. Vol. LXIV: no. 4. April 1974. p 23.

Karn, M. "The Nurse and the Provision of Primary Care in Accident Depts." New Zelaand Nursing Journal. Vol 71. no. 9. September 1978. p.p. 20-23.

Keach, "Disinfection and Sanitary Conference." New Zealand Nursing Journal. Vol. IV: no. 1. January 1911. pp. 15-18.

Kelber, M. "Communication or Conflict." New Zealand Nursing Journal. Vol. LVIII: no. 7. July 1965. pp. 7-11.

Kendall, H. "Grafting with Frog Skin." New Zealand Nursing Journal. Vol. X: no. 2. April 1917. p. 97.

Kennedy, D. "Nursing Development." New Zealand Nursing Journal. Vol. LXIV: no. 9. September 1971. pp. 17-18.

Kerr, M. "The Responsibility of a Professional Nurses' Association for Good Public Relations." New Zealand Nursing Journal. Vol: LIV. no. 6. June 1961. p.p. 8-13

King, I. Toward a theory for nursing. General concepts of Human Behaviour. New York: John Wiley & Sons Inc. 1971.

King. T. "Maternal Welfare." New Zealand Nursing Journal Vol. XIV: no. 2. April 1921. p. 82.

Kinloch, J. "People - Not Cases." New Zealand Nursing Journal. Vol. LXI: no. 10. October 1968. pp 14-15.

Kinross, N.J. "Changes in Nursing" The New Zealand Nursing Journal. Vol. 65: no. 12. December 1972. pp. 10-11.

Kinross, N. A study of Individual and Organisational Variables in Relation to Charge Nurse Behaviour. Massey University: Unpublished Doctoral Thesis. 1980.

Knights, H. "The value of T.A.B. Inoculation." New Zealand Nursing Journal. Vol. LIV: no. 9. September 1961. pp. 20-21.

Kreuter, F. "What is good nursing care?" Nursing Outlook 5: May 1957, p.p. 302-304.

Laity, B. "Accidents - Who's Responsible?" New Zealand Nursing Journal. Vol. LXV: no. 7. July 1972. pp. 9-10.

Lambie, M. in Hooper, C. "Refresher Course for Nurse Caring for the Aged and Chronic Sick." New Zealand Nursing Journal. Vol. XLV: no. 2. April 15 1952. pp. 38-43.

Lambie, M. "A Wealth of Information." The New Zealand Nursing Journal. Vol. LIII: no. 7. July 1960. pp. 8-17.

Lambie, M. "The Changing Scene in Health Work throughout the World." New Zealand Nursing Journal. Vol. XLVI: no. 6. December 15 1953. pp. 167-174.

Lambie, M. "Director Division of Nursing." New Zealand Nursing Journal. Vol. XXXI: no. 2. March 15 1938, pp. 61-69.

Lambie, M. "Nursing and its Relationship to the World Health Organisation." New Zealand Nursing Journal. Vol. XLIII: no. 3. May 1950. pp. 76-79.

Lewis, M. "Nursing." New Zealand Nursing Journal. Vol. XV: no. 4. October 1922. pp. 214-215.

Ligat, D. "Flavine and Brilliant Green in the Treatment of Wounds." New Zealand Nursing Journal. Vol. X: no. 3. July 1917. pp. 153-5.

Light, L. "Crash! Campaign to Reduce the Alcoholic Slaughter on our Highway." New Zealand Nursing Journal. Vol 67, no. 5, May 1974. pp. 10-11.

Longway, I. "Curriculum Concepts - A Historical Analysis." Nursing Outlook. Vol. 20: no. 2. February 1972. p.p.113-118.

Luxton, R. "New Lamps for Old." New Zealand Nursing Journal Vol. XXXIX: no. 5. May 15 1946. pp. 112-122.

Lyon, M. "Safety in the Psychiatric Field." New Zealand Nursing Journal. Vol. 66: no. 4. April 1973. p 35.

Lysaught, J. (ed). Action in Nursing. Progress in Professional Practice New York-McGraw-Hill Book Company. 1974.

Lythgoe, M. "The Child in Care." New Zealand Nursing Journal. Vol. 72: no. 4. April 1979. pp. 4-5.

McCaw, W. "Modern Antiseptics" New Zealand Nursing Journal. Vol. XV: no. 1. January 1922. pp. 5-8.

Macdonald, M. "A Nurses Part in the Compaign Against the Great White Plague." New Zealand Nursing Journal. Vol. VI: no. 1. January 1913. p 21.

Macearchern, M. "Nursing Profession. Service to the Patient." New Zealand Nursing Journal. Vol. XIX: no. 2. April 1926. pp. 65-67.

Maginnes, P. "Safety in the District." New Zealand Nursing Journal. Vol. 65: no. 12. December 1972. pp. 4-5.

Mackintosh, J. "The Nurse is a Good Teacher." New Zealand Nursing Journal. Vol. XXVII: no. 2. April 1954. pp. 47-49.

Mackintosh, P. "Burns." New Zealand Nursing Journal. Vol. LX: no. 12. December 1967. pp 13-17.

Macleod. "Life at Walton Hospital." New Zealand Nursing Journal. Vol. III: no. 1. January 1910. pp. 35-38.

McCluskey, F. "From Disabled Servicemen to Disabled Citizen" New Zealand Nursing Journal. Vol. LIV, no. 9: September 1961. pp. 13-18.

MacQueen, J. "A Phemonemology of Nursing." Nursing Papers 1974. Vol. 6: no. 3. p. 10.

McConnell, M. "Safety in the Operating Room." New Zealand Nursing Journal. Vol. 65: no. 10. October 1972. pp. 16-17.

McEwan, R. "Continue to Care." New Zealand Nursing Journal Vol. 68: no. 9. September 1974. pp. 7-8.

McFarlane, J. "Changes in the nature of nursing." Australian Nurses Journal. Vol. 11: no. 5. November 1981. pp. 39-40.

McIver. "What the community Expects of Nursing." New Zealand Nursing Journal. Vol. LXIII: no. 5. May 1970. p.7-9.

McKay, L. "The Gap - Is It Closing?" New Zealand Nursing Journal. Vol. 71: no. 5. May 1978. pp. 27-28.

McKenchnie, A. & Millar, N. "The Nursing Care Plan." New Zealand Nursing Journal. Vol. XXIV: no. 11. December 1971. pp. 10-12.

McKenzie, M. "Our Changing World." New Zealand Nursing Journal. Vol. LXV: no. 1. January 1972. pp. 26-27.

McLachlan, D. "What Not to Say and Do in the Care of the Mentally Ill." New Zealand Nursing Journal. Vol. LV: no. 12. December 1962. pp. 30-31.

McLean, H. "Vaccine Prophylactic for Typhoid Fever." New Zealand Nursing Journal. Vol. v: no. 1. January 1912 p.34.

McLean, H. "Editorial." New Zealand Nursing Journal. Vol. XIII: no. 1. January 1920. p 7.

McLean, H. "Editorial." New Zealand Nursing Journal. Vol. 1: no. 2. April 1908. p.p. 29-30.

McLean, H. "The Eight Hour Day." New Zealand Nursing Journal. Vol. II: no. 1. January 1909. pp. 1-3.

Magill, U. "An Emergency." New Zealand Nursing Journal. Vol. LV: no. 7. July 1962. p.p. 9-11.

Maguire, C. "Letter from the Front." New Zealand Nursing Journal. Vol. IX: no. 3. July 1916. p. 62.

Mahler, H. "Primary Health Care." New Zealand Nursing Journal. Vol. 70: no. 10. October 1977. p.p.3-6.

Mahler, H. W.H.O. World Health Assembly Report. 1975. Geneva. W.H.O.

Marquand, C. "The Core of Team Nursing." New Zealand Nursing Journal. Vol. LXIII: no. 8. August 1970. pp. 9-16.

Marshall, A. "Comfort of the Patient." New Zealand Nursing Journal. Vol. 65: no. 9. September 1972. p.6.

Martin, J. "Address by Miss J.I. Martin, Vice President." New Zealand Nursing Journal. Vol. XLV: no. 3. June 16 1952, pp. 69-76.

Martinson, D. "Why Research in Nursing?" In Chaska, N.L. The Nursing Profession - Views through the mist New York. McGraw-Hill Book Co. 1978. p.156.

Mason. "Tuberculosis." New Zealand Nursing Journal. Vol. 1: no. 3. July 1908. p.67.

Maude, S. "Hospital Etiquette." New Zealand Nursing Journal Vol. 1: no. 2. 1908 April. p.36.

Meachen, C. "Industrial Nursing and First Aid in Industry." New Zealand Nursing Journal. Vol. LIII: no. 1. January 1960. p.p. 11-12.

Meachen, C. "Civil Preparedness Means Survival" New Zelaand Nursing Journal. Vol. Liii: no.3. March 1960. pp. 25-28.

Menzies, J.R. "The Work of the Nurse in Industry." New Zealand Nursing Journal. Vol. XXXIX: no. 8. August 15 1946. pp. 207-208.

Mercier, D. "Treatment of Burns with Tincture of Iodine." New Zealand Nursing Journal. Vol. XIV: no. 3. July 1921. pp. 131-134.

MILES, A. Schwabachier, H. Cunliffe, A. Ross, J. Spooner E. Pilcher, R. and Wright T. "Hospital Infection." New Zealand Nursing Journal. Vol. XXXIV: no. 7. July 15 1941. pp. 220-225.

Milliken, T. "Some Aspects of Plastic Surgery of the Hand with Methods of Skin Replacement." New Zealand Nursing Journal. Vol. LIII: no. 6. June 1960. pp. 26-28.

Montgomery, G. "Immunity and Vaccine." New Zealand Nursing Journal. Vol. XVI: no. 1. January 1923. pp. 13-15

Moore, J. "Reminiscences of Nursing in New Zealand." New Zealand Nursing Journal Vol. XLIII: no. 6. October 16 1950. pp187-189.

Morris, B. "The Child at Risk in Play." New Zealand Nursing Journal. Vol. 72, no. 9, September 1979 pp. 5-6.

Murray, V. "Disaster Planning." New Zealand Nursing Journal Volume LXIII: no. 2. February 1970. pp. 10-12.

National Heart Foundation. "Risk Factors in Heart Disease." New Zealand Nursing Journal. Vol. LXII: no. 11. November 1969. pp. 7-21.

National Audiology Centre. "Dance Bands can Deafen." New Zealand Nursing Journal. Vol. LXII: no. 5. May 1969. p 14.

National Water Safety Committee. "Safety in the Water." New Zealand Nursing Journal.Vol. LVlll: no. 4.April 1965. pp. 13-14.

Neill, A.M. "Safety and the Industrial Nurse." New Zealand Nursing Journal. Vol. 66: no. 2. February 1973. pp. 13-14.

Neil, C. "An Interesting Letter." New Zealand Nursing Journal. Vol. X: no. 1. January 1917. pp. 13-14.

National Public Health Committee of the New Zealand Registered Nurses' Association. "The Story of Public Health Nursing in New Zealand." New Zealand Nursing Journal. Vol. XLX: no. 1. February 15 1956. pp. 9-12.

National Public Health Committee of the New Zealand Registered Nurses' Association. "The Story of Public Health Nursing in New Zealand." New Zealand Nursing Journal. Vol. XLX: no. 2. April 1956. pp. 48-49.

National Public Health Committee of the New Zealand Registered Nurses' Association. "The Story of Public Health Nursing in New Zealand." New Zealand Nurses Journal Vol. XLX: no. 4. August 1956. pp. 151-156.

National Public Health Committee of the New Zealand Registered Nurses' Association. "The Story of Public Health Nursing in New Zealand." New Zealand Nursing Journal Vol. XLIX: no. 4. October 1956. pp. 197-202.

New Zealand Nurses' Association (Inc). Policy Statement on Nursing in New Zealand. "New Directions in Post-Basic Educaton" Wellington. September 1976.

Nicholls, N. "The Nurse and Accident Prevention." New Zealand Nursing Journal. Vol. 66: no. 3 March 1973. p 4.

Nightingale, F. Notes on Nursing. London: Churchill Livingstone. 1980.

Nightingale, F. "The District Nurse - Some Notes by Florence Nightingale." New Zelaand Nursing Journal. Vol. 4: no. 2. April 1911. p. 76.

Nutting, A. and Dock, L. A History of Nursing. Volume 1. New York. G.P. Putnam & Sons 1907

Nutting, A. and Dock, L. "A Short History of Nursing." New Zealand Nursing Journal. Vol. XIV: no. 2. April 1921. pp 91-93.

O'Grady, K. "Suffering." New Zealand Nursing Journal. Vol. 65: no. 12. December 1972 pp. 13-14.

Orbell, A. "Hospital Job Analysis." In New Zealand Nursing Journal. Vol. XLVI: no. 8. August 1952. p.p. 134-136.

Orbell, A. "What is Nursing and Who Should Do Nursing?" In New Zealand Nursing Journal. Vol. LIII: no 5 May 1960 p.p. 6-7

Orbell, E. "What of Tomorrow?" New Zealand Nursing Journal. Vol. LV: no. 9. September 1962. pp 9-12.

O'Regan, R. "Surgical Shock." New Zealand Nursing Journal. Vol. XXVIII: no. 7. July 15 1935. pp 107-113.

Orem. D. Nursing: Concepts of Practice. McGraw-Hill Book Company. New York: 1980. Second edition.

Osbourne, R. "A Hospital's Precautions During Air Raids." New Zealand Nursing Journal. Vol. XXXIV: no. 4. 15 April 1941. pp 106-107.

Osbourne, R. "A Hospital's Precautions During Air Raids." New Zealand Nursing Journal. Vol. XXXV: no. 4. 15 April 1942. pp. 106-107.

Osler, W. Acquanimitas, Philadelphia. Blackiston & Co. 1932.

Page, A. "The Resuscitation of War Casulties." New Zealand Nursing Journal. Vol. XXXVI: no. 3. March 15 1942 pp. 73-75.

Palmer, M. "Under the French Red Cross." New Zealand Nursing Journal. Vol. VIII: no. 1. January 1915. pp. 15-17.

Palmerlee, G. "The Iodine Method of Sterilisation." New Zealand Nursing Journal. Vol. IV: no. 4. October 1911. p. 167.

Parkinson, M. "Nurse Teachers are Role Models Whether They Like it or Not." New Zealand Nursing Journal. Vol. 71: no. 1. 1978 January. pp. 14-16.

Peake, G. "Meeting Changing Needs." New Zealand Nursing Journal. Vol. LV: no. 1. January 1962. p. 25.

Peplau, H. Interpersonal Relations in Nursing. New York: G.P. Putnam and Sons. 1952.

Pickard, M. "Focus on Nursing." New Zealand Nursing Journal. Vol. LIX: no. 7. July 1966. pp. 5-7.

Pickering, T. "Masters of our own Fate." New Zealand Nursing Journal. Vol. LX: no. 7. July 1967. p.11.

Pickerill, H. "Nursing of Plastic Surgery." New Zealand Nursing Journal. Vol. XXXIII: no. 11. 15 November 1940. pp. 346-353.

Pilson, J. "New Zealand and Health Education." New Zealand Nursing Journal. Vol. LVI: no. 10. October 1963. pp. 9-10.

Police Department. "Rules Save Children." New Zealand Nursing Journal. Vol. LXIII: no. 9. September 1970. p.26.

Powell, E. "Organisation for Nursing Education." New Zealand Nursing Journal. Vol. LIV: no. 7. July 1961. pp. 17-24.

Public Health Department. "Beware of Tetanus." New Zealand Nursing Journal. Vol. LVIII: no. 1. January 1965. p.9.

Purdy, J. "Flies and Fleas as Factors in Disseminating Disease." New Zealand Nursing Journal. Vol. III: no. 2. April 1910. pp. 71-75.

Reader, D. "Case Study." New Zealand Nursing Journal. Vol. LVI: no. 12. December 1963. pp. 17-22.

Reid, H. "Accidents in New Zealand and the Corrective Measures for the Prevention." in First Industrial Safety Course for Women by Fraser. M. New Zelaand Nursing Journal. Vol. LVIII: no. 3. March 1965. pp. 10-11.

Reihl, J. and Roy, Sister C. Conceptual Model for Nursing Practice. New York: Appleton Century Crafts.

Reilly, D. Behavioural Objectives in Nursing: Evaluation of Learner Attainment. New York. Appleton Century-Crofts. 1975.

Richardson, M. "Vaccine Therapy in Typhoid Fever." New Zealand Nursing Journal. Vol. IV: no. 2. April 1911. p.60.

Robb, J. "Nurses and Administration." New Zealand Nursing Journal. Vol. 68: no. 7. July 1974. pp. 4-9 & p.16.

Roboobi, N. and McEwan, R. "Mental Health - the Pivot of Human Relationships." New Zealand Nursing Journal. Vol. LXI: no. 5. May 1968. pp 5-8.

Robree, C. "Prevention of Typhoid Fever." New Zealand Nursing Journal. Vol. III: no. 2. April 1910. p.70.

Rochfort, A. "A Visit to Some English Sanatoria for Consumption." New Zealand Nursing Journal. Vol.1:no. 2. April 1908. pp. 16-18.

Rogers, A. An Introduction to the Theoretical Basis of Nursing. Philadelphia: F.A. Davis Co. 1970

Roper, N., Logan, W. and Tierney, A. Elements of Nursing. London: Churchill Livingstone. 1980.

Russell, J. "War Neurosis and Nursing Care." New Zealand Nursing Journal. Vol. XXXIII: no. 7. 15 August 1940. pp. 274-277.

Salmon, E. "Tarantara." New Zealand Nursing Journal. Vol. LVIII: no. 1. 1965 January pp. 5-6.

Salmon, E. "Education for Nursing." New Zealand Nursing Journal. Vol. LXI: no. 9. September 1968. pp. 5-8.

Salmon, E. "Nursing in the Age of Automation." New Zealand Nursing Journal. Vol. LXII: no. 12. December 1969. pp. 20-21.

Salmon, E. "Health - Everyone's Business." New Zealand Nursing Journal. Vol. LXV: no. 4. April 1972. pp. 22-25.

Sand, R. "The Nurse-Sentinel of Health." New Zealand Nursing Journal. Vol. XLVII: no. 2. April 15 1954. pp. 42-43.

Scott, P. "By Nurse and Machine." New Zealand Nursing Journal. Vol. 66: no. 7. July 1973. pp. 8-12.

Seath, D. "Civil Defence Medical Plan." New Zealand Nursing Journal. Vol. LX: no. 12. December 1967. p. 36.

Selby, R. "A Community Health View." New Zealand Nursing Journal. Vol. 66: no. 1, January 1973. pp. 5-6.

Shadbolt, Y. "Nursing Educaton in New Zealand" New Zealand Nursing Journal Vol. 68: no. 1. January 1975. pp. 19-22.

Sheen, A. "Shell Wounds." New Zealand Nursing Journal. Vol. VIII: no. 2. April 1915. pp. 75-76.

Silverwood, R. "Problem with a Challenge." New Zealand Nursing Journal. Vol. LX: no. 3. July 1967. pp. 5-6.

Silverwood, R.K. "Awareness." New Zealand Nursing Journal Vol. LX: no. 7, July 1967. p 4.

Simmers, E. and Peel, J. "Drugs and the Nurse." New Zealand Nursing Journal. Vol. XLI: no. 7. December 15 1948. pp. 254-255.

Simpson, P. "Medication and the Elderly." New Zealand Nursing Journal. Vol. 73: no. 10. October 1980. pp. 3-4.

Sinclair-Loutit. "First Aid Observation and Treatment of Abdominal Wounds." New Zealand Nursing Journal. Vol. XXXIII: no. 8. August 1940. pp. 250-251.

Sister Mary Therese and Sister Mary Anne. "The Principles of Nursing Care." New Zealand Nursing Journal. Vol. LVII: no. 4. April 1964. pp. 29-31.

Skeet, M. Notes on Nursing the Science and the Art. London: Churchill Livingstone. 1980.

Slye, K. "A New Zealand Field Ambulance in Syria." New Zealand Nursing Journal. Vol. XXXV: no. 11. 15 December 1942. pp. 309-310.

Smith, H. "A Deadly Enemy - V.D." New Zealand Nursing Journal. Vol. VII: no. 3. July 1914. pp. 112-114.

Smith, S. "Nurses in a Co-operative Health Service." New Zealand Nursing Journal. Vol. XXXV: no. 4. 15 April 1942. pp. 103-105.

Somerset, H. "The Art of Communication in Nursing." New Zealand Nursing Journal. Vol. LVII: no. 10. October 1964. pp. 7-9.

Sorenson, K. and Luckmann, J. Basic Nursing. A Psycho-physiologic Approach. W.B. Saunders Co: Philadelphia. 1979.

Spence, M. "The Acute Respiratory Unit (Part 1)". New Zealand Nursing Journal Vol. LVI no. 7. July 1965 p.p. 14-17.

Spence, M. "The Acute Respiratory Unit (Part II)" New Zealand Nursing Journal. Vol. LVI. no. 8. August 1965. p.p.14-17

Standard, S. "The Avoidance of Self Injury in Hospital Techniques." New Zealand Nursing Journal Vol. XLIII: no. 2. April 15 1950. pp. 48-53.

Stevens, B. Nursing Theory. Analysis, Application, Evaluation. Boston: Little, Brown and Company. 1979. p 161.

Stewart, I. in Newton, M.E. Florence Nightingale's Philosophy of Life and Education. Unpublished. Ph.D. Dissertation. Stanford University 1949. p 6.

Stewart, I. "The Report of the Committee on Education of the International Council of Nurse." New Zealand Nursing Journal. Vol. XXIV: no. 2. March 16 1931 pp. 86-92.

Stewart, I. "The Report of the Committee on Education of the International Council of Nurse." New Zealand Nursing Journal. Vol. XXIV: no. 3. May 15 1931. pp. 111-115.

Stone, D. In G. McLachlan (ed) Priorities for Prevention Nuffield Provincial Hospital Trust.1977.

Stote-Blandy, B. "Discussion on our Interaction, and especially our communication with our Patients." New Zealand Nursing Journal. Vol. 71: no. 10. October 1978. pp. 18-19.

Stout, D. "Recent Surgical Advances." New Zealand Nursing Journal. Vol. VII: no. 2. April 1914. pp. 60-66.

Stringanov, A. "Noise - The Invisible Enemy." New Zealand Nursing Journal Vol. LXII no. 4 April 1969. pp. 19-20.

Sutch, W. The Responsible Society in New Zealand. Whitcombe -Tombs Ltd. Christchurch. 1978.

Talbot, J. "The Teaching Role of the Nurse in Infant and Maternal Health." New Zealand Nursing Journal. Vol. LXI: no. 10. October 1968. pp. 15-16.

Tauber, I. "Changes in the Contrast and Presentation of Reading Material in Minnesota Weekly Newspapers 1860-1929." Journalism Quarterly. 1932. p.p.281-289.

Taylor, E. "The Dream is a Reality." New Zealand Nursing Journal. Vol. XVII: no. 4. September 1924. pp. 110-112.

Taylor, E. "The Spirit and the Art of Nursing." New Zealand Nursing Journal. Vol. XXXI: no. 2. March 15 1938. pp. 58-60.

Taylor, E. "Preparing the Nurse for Community Service." New Zealand Nursing Journal. Vol. XXXII: no. 4. July 15 1939. pp. 241-7.

Taylor, J."The Changing Pattern of Occupational Health." New Zealand Nursing Journal. Vol. LXII no. 2 April 1964. pp. 12-13.

Taylor, J. "Home Accidents." New Zealand Nursing Journal Vol. LXV: no. 6. June 1974. p 3.

Tennant, A. "Anxiety Neurosis." New Zealand Nursing Journal Vol. XXXVII: no. 9. September 1944. pp. 197-200.

Teki, A. "Saturday Night Emergency." New Zealand Nursing Journal, Vol. 66. no. 5. May 1973. pp. 4-5.

Thom, N.G. "The Danger of Smog." New Zealand Nursing Journal Vol. LXII: no. 11, November. 1970. p 15.

Thompson, A. "Modern Methods in the Prevention of Epidemic Disease." New Zealand Nursing Journal. Vol. XLI: no. 2. April 15 1948. pp. 48-51.

Thompson, L. "The Changing Role of the Nurse (Part One)" New Zealand Nursing Journal. Vol. LXI: No. 3. March 1968. pp. 19-20.

Thomson, M. "Change in Nursing Education." New Zealand Nursing Journal. Vol. 68: no. 12. December 1975. pp. 22-23.

Thomssen, R. "Psychological Aspects of Intensive Care Units or Culture Shock in Hospitals." New Zealand Nursing Journal. Vol. 74. no 9. September 1981. pp. 26-27.

Toffler, A. Future Shock. New York: Random House, 1970.

Toynbee, A. in Donnelly et al. The Nursing System Issues, Ethics and Politics. New York: John Wiley & Sons. 1980.

Train, W. "Case of the Foreign Body." New Zealand Nursing Journal. Vol. XXIX: no. 11. November 16 1936. pp. 25-26.

Trusler, E. "Burns." New Zealand Nursing Journal. Vol. 74: no. 4. April 1981. pp. 3-6.

Turbott, H. "Nurses - Their Education and Their Role in Health Programmes." In New Zealand Nursing Journal Vol. L: no. 3. June 1957. pp. 103-110.

Turner, N. "Some Social Aspects in Nursing" New Zealand Nursing Journal. Vol. LIX: no. 11. December 1966 pp. 6-7.

Unnamed Post Graduate Student. "Outpatients Department." New Zealand Nursing Journal. Vol. XXIII: no. 5. May 15 1930. pp. 136-140.

Unnamed Post Graduate Student. 'Nursing.' New Zealand Nursing Journal. Vol. XXXI: no. 2. February 15 1938. pp. 50-54.

Unnamed Post Graduate Student. "Family Forces Affect the Individual." New Zealand Nursing Journal. Vol. XLVII: no. 6. December 1954. pp. 222-223.

Unsigned Article. "The Recent State Examination for Nurses." New Zealand Nursing Journal. Vol. I: no. 1. January 1908. pp. 9-11.

Unsigned Article. "District Nurse." New Zealand Nursing Journal. Vol. 1: no. 4. October 1908. pp. 118-119.

Unsigned Article. "District Nurses." New Zealand Nursing Journal. Vol. 1: no. 4. October 1908. p.157.

Unsigned Article. "Acute Rheumatism." New Zealand Nursing Journal. Vol. 1: no. 4. October 1908. p.81.

Unsigned Article. "The Recent State Examinations for Nurses." New Zealand Nursing Journal. Vol. 11: no. 2. April 1909. p.161.

Unsigned Article. "The Recent State Examination for Nurses." New Zealand Nursing Journal. Vol. 11: no. 4. October 1909. p.139.

Unsigned Article. "State Examination of Nurses." New Zealand Nursing Journal. Vol. III: no. 3. July 1911. p.122.

Unsigned Article. "State Examination of Nurses." New Zealand Nursing Journal. Vol. Vi: no. 2. April 1913. p.51.

Unsigned Article. "A Compound Fractured Skull in a Country Hospital." New Zealand Nursing Journal. Vol. VII: no. 2. April 1914. p.76.

Unsigned Article. "With the American Ambulance." New Zealand Nursing Journal. Vol. VIII: no. 1. January 1915. p.50.

Unsigned Article. "Special Treatment of Gunshot Fractures." New Zealand Nursing Journal. Vol. IX: no. 1. January 1916. p.132.

Unsigned Article. "State Finals." New Zealand Nursing Journal. Vol. X: no. 1. January 1917. p.47.

Unsigned Article. "What the Public Health Movement Expects of Nurses." New Zealand Nursing Journal. Vol. XVI: no. 3. July 1924. p.96.

Unsigned Article. "The Traditions of Florence Nightingale." New Zealand Nursing Journal. Vol. XVIII: no. 4. October 1925. p.176.

Unsigned Article. "The Nurse in Industry." New Zealand Nursing Journal. Vol. XX: no. 3. July 1927. pp. 117-118.

Unsigned Article. "The Personal Care of Nursing." New Zealand Nursing Journal. Vol. XX: no. 1. January 1927. p.3.

Unsigned Article. "The Ward Sister." New Zealand Nursing Journal. Vol. XX: no. 4. October 1927. pp. 264-5.

Unsigned Article. "Preliminary School." New Zealand Nursing Journal. Vol. XXI: no. 4. October 1928. pp. 180-182.

Unsigned Article. "State Examination for Nurses." New Zealand Nursing Journal. Vol. XXIII: no. 2. March 15 1930. pp. 74-76.

Unsigned Article. "Signs and Symptoms of Head Injuries." New Zealand Nursing Journal. Vol. XXIII: no. 3. March 15 1930. p.7

Unsigned Article. "Conference Report." New Zealand Nursing Journal. Vol. XXIII: no. 11. November 15 1930. p. 312.

Unsigned Article. "The Preventive Medicine." New Zealand Nursing Journal. Vol. XXVII: no. 3. July 16 1934. pp. 113-114.

Unsigned Article. "Nursing Care." New Zealand Nursing Journal. Vol. XXXI: no. 6. June 15 1938. pp. 201-204.

Unsigned Article. "Nursing Care." New Zealand Nursing Journal. Vol. XXXII: no. 3. June 15 1939. pp. 201-4.

Unsigned Article. "Medical Services: Past, Present and Future." New Zealand Nursing Journal. Vol. XXXVIII: no. 1. 15 January 1945. pp. 5-14.

Unsigned Article. "The Development of Industrial Nursing." New Zealand Nursing Journal. Vol. XLI: no. 2. April 15 1948. pp. 55-58.

Unsigned Article. "Youth in Industry A Formula for Safety." New Zealand Nursing Journal. Vol. LIV. no. 9. September 1961. p. 26.

Unsigned Article. "Now Safety Belts for Hospital Patients." New Zealand Nursing Journal. Vol. LVIII. no. 12. December 1965. p. 27.

Unsigned Article. "The Needs of the Individual." New Zealand Nursing Journal. Vol. 66: no. 8. August 1973. pp. 25-27.

Unsigned Article. "Children Admitted to Ward One at Hutt Hospital Suffering From Burns and Scalds." New Zealand Nursing Journal. Vol. 70: no. 5, May 1979. p. 28.

Unsigned Editorial. "Specialisation in Medical Work." New Zealand Nursing Journal. Vol. XX: vol. 3. July 1917. pp. 127-128.

Unsigned Editorial. "Editorial." New Zealand Nursing Journal Vol. XXVI: no. 1. January 16 1933. p.292.

Unsigned Editorial. "Government Health Department Report." New Zealand Nursing Journal. Vol. XXIII: no. 1. 15 January 1934. pp. 243-4.

Unsigned Editorial. "Nursing as a National Service." New Zealand Nursing Journal. Vol. XXXV: no. 2. 15 February 1942. pp. 35-36.

Unsigned Editorial. "Emphasis on First Aid." New Zealand Nursing Journal. Vol. XXXV: no. 3. 15 March 1942. pp. 67-68.

Unsigned Editorial. "A New Order." New Zealand Nursing Journal. Vol. XXXV: no. 4. 15 April 1942. pp. 99-100.

Unsigned Editorial. "Health Education." New Zealand Nursing Journal. Vol. XXXVIII: no. 7. 15 July 1945. p.p. 155-156.

Unsigned Editorial. "The Nursing Curriculum." New Zealand Nursing Journal. Vol. XXXVIII: no. 8. 15 August 1945. pp. 179-181.

Unsigned Editorial. "Nurses, their Education and their Role in Health Programmes." New Zealand Nursing Journal. Vol. XLIX: no. 11. February 15 1956. pp. 2-3.

Vaillot, Sister M.C. "Living and dying. Hope. The Restoration of being." American Journal of Nursing. 7. 268-273: February 1970.

Valentine, Dr. "Address to Wellington Trained Nurses Association." New Zealand Nursing Journal. Vol. 1: no. 4. October 1908. p.112-113.

Verhenick, P. and Seaman, C. Research Methods for Undergraduate Students in Nursing. Appleton Century-Crofts. New York: 1978.

Voyce, C. "An Occupational Health Service for Private Industry." New Zealand Nursing Journal. Vol. 74: no. 7. July 1981. p.14.

Walker, B. "Technological Change: Issues and Impact." New Zealand Nursing Journal. Vol. 74: no. 6. June 1981. p.12.

Wallis, L. "Services at a Convalescent Hospital." New Zealand Nursing Journal. Vol. XXXVI: no. 11. November 1943. pp. 204-206.

Wandelt, M. Guide for the Beginning Researcher. New York: Appleton-Century-Crofts. 1970.

Watt, J. "The Battered Baby." New Zealand Nursing Journal. Vol. LVIII: no. 6. June 1965. p.14.

Watts. S. "How Shall we Train our Ward Sisters???" New Zealand Nursing Journal. Vol. LVI: no. 9. September 1963. pp. 13-14.

Webster, R. "Fractured Femur." New Zealand Nursing Journal. Vol. 69: no. 12. December 1976. pp. 6-8.

Wells, J. "Nurses in Civil Emergency." New Zealand Nursing Journal. Vol. 72: no 9. September 1979. pp. 26-28.

West, N. and Hawkins, C. in Longway I. "Curriculum Concepts - An Historical Analysis." Nursing Outlook. Vol. 20: no. 2. Feburary 1972. p.118.

Whaiora. "The Concept of Teamwork Inherent in Medicine and Allied Profession Today." New Zealand Nursing Journal. Vol. XIII: no. 7. July 1960. pp. 32-33.

Wheeler, J. "Civil Defence: Auckland Exercise 'Medaid'" New Zealand Nursing Journal. Vol. 68: no. 1. January 1975. pp. 24-25.

Wolf, L. "Clinical Instruction." New Zealand Nursing Journal Vol. XLII: no. 6. October 1949. pp. 162-164.

Wood, "The Wants of the Nursing Profession." New Zealand Nursing Journal. Vol. XI: no. 4. October 1918. p.p. 205- 207.

World Health Organisation. "World Health Organisation Expert Committee on Nursing." New Zealand Nursing Journal. Vol. XLV: no. 4. August 15 1952. pp. 147-148.

World Health Organisation. "Report of Expert Committee on Health Educaton of the Public." New Zealand Nursing Journal. Vol. XLVIII: no. 21. April 15 1955. pp.34-35.

World Health Organisation. "Nurses: Their Education and their Role in Health Programmes." New Zealand Nursing Journal. Vol. XLIX: no. 4. October 15 1956. pp. 205-207

World Health Organisation. "Nurses: Their Education and their Role in Health Programmes." New Zealand Nursing Journal. Vol. XLIX: no. 5. December 1956. pp. 230-235

W.H.O. "Smallpox." New Zealand Nursing Journal. Vol. LV no. 6 June 1962. p.p. 26-28.

W.H.O. "Tuberculosis." New Zealand Nursing Journal. Vol. LVII: no. 4. April 1969. p.10.

World Health Organisation. "Planning and Programming for Nursing Services. Geneva: Public Health Paper. no. 44. 1971.

W.H.O. Press Release "Accidents Need Not Happen". New Zealand Nursing Journal. Vol. LIV: no. 6. June 1961. pp. 36-37.

W.H.O. Release. "Nurses." New Zealand Nursing Journal Vol. LX: no. 4. April 1967. pp. 5-6.

Wylie, D. "Orthopaedic Prophylaxis and Development." New Zealand Nursing Journal. Vol. XIII: no. 3. July 1920. pp. 119-121.

Young, W. "Gastric Ulcers." New Zealand Nursing Journal. Vo. 1: no. 3. July 1908. p.76.

Young, W. "Special Treatment of Gunshot Fractures." New Zealand Nursing Journal. Vol. XI: no. 4. October 1916. pp. 215-217.

Young, W. "Treatment of Gunshot Wounds." New Zealand Nursing Journal. Vol. XXXIII: no. 1. January 15 1940. pp. 9-11.

TABLE 1.1: DEFINITIONS OF NURSING

Nursing Leaders	Definitions of Nursing
Florence Nightingale (1859)	To put the patient in the best condition for nature to act upon him. Nursing ought to signify the proper use of fresh air, light, warmth, cleanliness, quiet and the proper selection and administration of diet - all at the least expense of vital power to the patient. (p.2).
International Council of Nurses (1934)	The essence of nursing broadly interpreted is conservation or vital economy - the safe-guarding and building up of the life forces in the individual and the race. This includes the mixture of both mental and physical energies and the building up of resistance and vigour in healthy and growing individuals as well as those who are ill or ailing. (p.p.16-17).
Lavinia Dock and Isabel Stewart (1938)	To promote and conserve health and prevent disease; protect and care for people's social and physical environment and care for the whole person, mind and body. (p.355).
Hildegard Peplau (1952)	Nursing is a significant therapeutic interpersonal process... It functions co-operatively with other human processes that make health possible for individuals in communities... Nursing is an educative instrument, a maturity force, that aims to promote forward movement of personality in the direction of creative, constructive, productive, personal and community living. (p.16).
Francis Kreuter (1957)	Nursing is a service for the care of the sick, the prevention of illness, and the promotion of health, a portion of which is carried out under medical authority. (p.302).
Dorothy Johnson (1959)	To assist the patient in the maintenance or re-establishment of a moving state of equilibrium throughout the health change process. (p.198).