44990

National Library of Canada | Bibliothèque nationale du Canada

CANADIAN THESES ON MICROFICHE | THÈSES CANADIENNES SUR MICROFICHE

NAME OF AUTHOR/*NOM DE L'AUTEUR* Mary W. WHITEHEAD

TITLE OF THESIS/*TITRE DE LA THÈSE* THE PERCEIVED LEARNING NEEDS OF THE BEGINNING GRADUATE OF THE GENERAL NURSING PROGRAM AT THE BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

UNIVERSITY/*UNIVERSITÉ* SIMON FRASER UNIVERSITY

DEGREE FOR WHICH THESIS WAS PRESENTED/*GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE* M.A. (EDUCATION)

YEAR THIS DEGREE CONFERRED/*ANNÉE D'OBTENTION DE CE DEGRÉ* 1980

NAME OF SUPERVISOR/*NOM DU DIRECTEUR DE THÈSE* Dr. Selma Wassermann

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

DATED/*DATÉ* Aug 9/79 SIGNED/*SIGNÉ*

PERMANENT ADDRESS/*RÉSIDENCE FIXÉ*

NL-91 (11-73)

National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

Ottawa, Canada
K1A 0N4

NL-339 (Rev. 8/80)

THE PERCEIVED LEARNING NEEDS OF THE BEGINNING GRADUATE OF THE GENERAL NURSING PROGRAM AT THE BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

by

Mary W. Whitehead

B.S.N., University of British Columbia, 1973

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (EDUCATION)
in the Faculty
of
Education

© Mary W. Whitehead 1979

SIMON FRASER UNIVERSITY

August 1979

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without permission of the author.

PARTIAL COPYRIGHT LICENSE

I hereby grant to Simpn Fraser University the right to lend my thesis or dissertation (the title of which is shown below) to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users. I further agree that permission for multiple copying of this thesis for scholarly purposes may be granted by me or the Dean of Graduate Studies. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Title of Thesis/Dissertation:

THE PERCEIVED LEARNING NEEDS OF THE BEGINNING GRADUATE OF THE GENERAL NURSING PROGRAM AT THE BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Author: ______________________

(signature)

Mary W. WHITEHEAD

(name)

Aug 9/79

(date)

APPROVAL

Name: Mary W. Whitehead

Degree: Master of Arts (Education)

Title of Thesis: The Perceived Learning Needs of the Beginning Graduate of the General Nursing Program at the British Columbia Institute of Technology

Examining Committee

Chairman A. H. Elliott

S. Wassermann
Senior Supervisor

M. Wideen
Second Member

Helen L. Shore
Associate Professor
School of Nursing
University of British Columbia
Vancouver, B. C.
External Examiner

Date approved Aug 10, 1979

ABSTRACT

After a century of hospital training consisting of little more than the learning of service skills, the 1970's saw the preparation of nurses in institutions of higher learning. In 1967, the first independent two year diploma program in nursing in British Columbia was initiated at the British Columbia Institute of Technology. This study attempted an investigation of the perceived learning needs of two groups of graduates from the general nursing program at this Institute.

The first group, Group I, represented the July 1978 graduates, who had between three to six months work experience at the time of the study. Group II represented the March 1979 graduates, most of whom had not begun to work at the time of the study. Data were collected through a questionnaire. Respondents were asked to examine their training experiences in relation to the program's curriculum objectives, the program's articulated philosophy and the program's curriculum experience. They were asked to reflect upon how well they felt able to perform specific nursing functions. Thirty-seven returns were received from Group I and forty returns were received from Group II, representing over a sixty percent return from each group.

It was hypothesized that no significant difference would be found between groups in their perceptions of learning needs

and in their perceptions of the amount of guidance needed in carrying out specific nursing functions.

The major analysis employed was the t-test for significant mean differences between the responses of the two groups. Differences were accepted as significant at the .05 level of confidence.

With respect to the hypotheses under investigation the following conclusions were drawn: there were no significant differences between groups in their perceptions of learning needs and in their perceptions of the amount of guidance needed in carrying out specific nursing functions.

Several implications emerged as a result of the study. These included perceptions of strengths and weaknesses in program preparation, satisfaction with respect to training, importance of being thoroughly familiar in curriculum areas, need for more emphasis in curriculum areas, and need for more guidance in nursing practice areas.

Suggestions for further study included a need for examination of students' perceptions of training during the course of the program per se.

ACKNOWLEDGEMENTS

Acknowledgement must be made to a great many people who gave their assistance in the completion of this study.

Special thanks are due:

to Dr. Selma Wassermann who gave so freely of her time, expertise and encouragement throughout the study,

to Dr. Ian Allen for his advice on questionnaire development,

to Bill Tattersall whose timely advice, encouragement and support was greatly appreciated,

to Walter Sudmant for his invaluable assistance with the statistical data,

to Marj McLeod for her assistance in finding all my requested literature, and so much more,

to Diana, Linda, Lois, Sharon and Wilma for helping me field-test the questionnaire,

to my son, Reid, for enduring a "student" mother for the past two years,

and to my husband, Barry, who spent many hours typing and retyping my drafts without too many complaints and has endured two long years with a "student" wife.

I have much to be thankful for.

TABLE OF CONTENTS

APPROVAL ii

ABSTRACT iii

ACKNOWLEDGEMENTS v

LIST OF TABLES viii

LIST OF FIGURES x

Chapter

I. INTRODUCTION 1

Statement of problem 1

Background and rationale of the study 2

Purpose of the study 4

Hypotheses 4

Assumptions 5

Definition of terms 5

Limitations of the study 7

II. REVIEW OF RELATED LITERATURE 9

Nursing education: a historical perspective 8

Early nursing 8

Early Canadian nursing 11

Florence Nightingale 13

Introduction to organized nursing in Canada (1860-1893) 14

Historical landmarks in Canadian nursing (1874-1924) 17

Canadian nursing education from 1925-1949 21

Canadian nursing education from 1950-1964 25

Development of the two-year diploma nursing program in Canada 1964-1979 28

Theoretical components in the two year diploma program in nursing education 33

Clinical components in the two year diploma program in nursing education 36

Research findings in the effectiveness of the two year diploma program 37

III. DESIGN AND PROCEDURES 45

The samples 45

Questionnaire development 46

Data collection 54

Exclusions from the study 54

Data analysis 55

IV. FINDINGS, CONCLUSIONS AND IMPLICATIONS 57

Findings 57

Analysis of comments to Part II of the questionnaire 90

Discussion 105

Conclusions 112

Implications 113

Appendix

A. THE QUESTIONNAIRE 117

B. BCIT GENERAL NURSING CURRICULUM 137

C. LETTERS 157

BIBLIOGRAPHY 163

LIST OF TABLES

1. A Comparison of Group I and II Showing Sex, Age and Marital Status 47

2. Nursing Employment 48

3. Plans for Employment and Clinical Area Preferred: Group II 49

4. Perceptions of Preparation in Relation to the Attainment of Programs' Curriculum Objectives, Groups I and II 59

5. Perceptions of Extent to Which Programs' Beliefs Promoted Growth and Interest in Continued Learning, Groups I and II 62

6. Perceptions of Knowledge in Curriculum Areas, Groups I and II 65

7. Perceptions of Competence in Curriculum Areas, Groups I and II 67

8. Perceptions of Personal Satisfaction in Curriculum Areas, Groups I and II 69

9. Perceptions of Importance of Thorough Familiarity in Curriculum Areas, Groups I and II 72

10. Perceptions of Emphasis Needed in Curriculum Areas, Groups I and II 74

11. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Nursing Process 77

12. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Nursing Skills 79

13. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Nursing Care 81

14. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Professional Responsibility 82

15. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Communicates Effectively and Uses Community Health Care Agencies 84

16. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Functions as a Staff Nurse 86

17. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Sets Priorities 88

18. A Comparison of Group Responses to Amount of Guidance Needed in Nursing Practice: Demonstrates Responsible Behaviour 89

19. Summary of Responses of Areas of Perceived Inadequate Preparation 97

20. Summary of Responses for Courses and Experiences Recommended to be Excluded 99

21. Summary of Responses for Areas Recommended to be Added to the Program 102

22. Summary of Responses of Most Beneficial Areas Perceived by the Graduates 104

LIST OF FIGURES

1. Schematic Representation of the Questionnaire . . . 50

CHAPTER I

INTRODUCTION

The development of the two year diploma program in nursing in Canada is no longer a dream but a reality. After a century of hospital training consisting of little more than the learning of service skills, the 1970's saw the preparation of nurses based almost totally in institutions of higher learning. As the transition was made and as more attention was focused on the development of competency in the training of nurses, it was natural that the effectiveness of the new two year program would begin to come under scrutiny.

In 1967, the first independent two year diploma program in nursing in British Columbia was initiated at the British Columbia Institute of Technology. Since the performance of the beginning graduate is a highly debated issue, many studies have been undertaken in an attempt to evaluate their performance level. However, while responses of the graduates have been used, few studies have been attempted to gather information from the graduates themselves regarding their perceptions of the effectiveness of their training. It is to this area of inquiry that this study is addressed.

Statement of Problem

This study attempted to investigate the perceived learning needs of the beginning graduate of the general nursing program at

the British Columbia Institute of Technology (BCIT). Specifically, this study attempted to:

1. examine the perceived learning needs of two groups of graduates--a recent graduating class and a class with three to six months of work experience;
2. examine the differences between the two groups' perceptions of performance in the clinical area.

Background and Rationale of the Study

Preparation of the diploma nurse within the general system of education has been a goal of organized nursing since the beginning of the twentieth century. The development of nursing education in Canada has parallelled the history of education in all modern countries in that the acquisition of a professional spirit and scientific outlook is a slow and tedious process (Weir, 1932). The hypothesis that a person could become a competent nurse in less than three years if unnecessary repetitive tasks were eliminated and if learning experiences, both in classroom and clinical areas were carefully selected and well guided, has been supported by various studies conducted by Lord (1952), Wallace (1955), and Montag (1959). The report of the Royal Commission of Health Services in the 60's along with the development of the community college system, led to the development of the first independent two year diploma program in the educational system of a Canadian province in 1964 at Ryerson Institute of Technology in Toronto, Ontario.

The two year basic nursing programs are planned with specific objectives in view for promoting knowledge and for the

development of specific skills leading to competence in carrying out common nursing procedures (Innis, 1970). The student is taught nursing principles and their application to specific situations. Opportunities are provided to care for selected patients and to perform necessary nursing tasks as a purposeful process rather than as a series of unrelated and repetitive activities. Nursing experience is planned and selected for its relation to the objectives of each course, the required knowledge and skills and the needs of the individual patient (Steed, 1968).

The BCIT general nursing program has undergone many changes since its inception in 1967. As technological, economic and social changes have influenced the role of the nurse, so has the curriculum changed to ensure that the graduate meets the more rigorous demands of our changing health services. In 1978, a new curriculum was developed and students were admitted to the new program in August of that year. This study has attempted to provide data about the graduate's perceived learning needs upon the completion of their program, with the expectation that the data may 1) provide useful information which can lead to further strengthening of the program, and 2) establish criteria with which to compare the revised program.

The BCIT program, in accordance with the recommendations of the Registered Nurses Association of British Columbia, prepares the graduate of the program:

> ...to seek employment in general hospitals and other health care agencies where a comparable level of nursing care and judgement are required. Here he/she will work under the general supervision of a nurse in charge and will receive support and assistance from an experienced registered nurse.

> Working within the framework of the established policies, procedures and routines of the employing agency, the graduate will provide nursing care for infants, children and adults. Exceptions are those people who are in critically unstable conditions and/or predictably require rapid assessment and immediate judgement for nursing action. (BCIT General Nursing Report, 1977)

Purpose of the Study

The study had two major purposes. The first was to determine the perceived learning needs of a beginning graduate from BCIT. How satisfied are the graduates with the two year diploma program designed to prepare them for graduate duties? The second purpose was to identify the curriculum areas within the program which, in the opinion of the graduate, are perceived to result in unsatisfied learning needs.

Graduates from the July 1978 class (N = 60), and graduates from the March 1979 class (N = 58), were asked to participate in this survey of perceived learning needs. A questionnaire was mailed to the participants to gather data related to curriculum content and performance level as perceived by the graduate.

Hypothesis

To carry out the purpose of the study the following hypotheses were generated:

There will be no significant difference between the perceived learning needs of the graduating student (March 1979 class), and the neophyte graduate (July 1978 class) with three to six months work experience.

There will be no significant difference between the two groups in relation to their perceptions of their performance in the clinical area.

Assumptions

One basic assumption of this study is that nurses can be prepared in educational institutions in a two year training program. It assumes that many factors influence this program to support and to augment development or to impede and place barriers in the way (M. Allen, 1971).

A second assumption is that a training program consisting of theoretical and clinical experiences results in the development of professional competence.

A third assumption is that the graduate's perceptions of learning needs are valid indicators of a program's strengths and weaknesses.

Definition of Terms

The following terms are defined as they were used in the context of this study.

Perceived learning needs--needs for increased knowledge and skills as perceived by the individual nurse as necessary in the performance of his/her role as a beginning nurse practitioner.

Two Year Diploma Program in Nursing--a program offered by an educational institute that leads to a diploma in two years. The graduate is eligible to apply for licensure as a registered nurse and to seek employment in hospital and other community health care systems.

<u>Theoretical components in the Two Year Diploma Nursing Program</u>--courses in nursing and general education that are taught concurrently during the two year program. General education courses include natural sciences, social sciences, humanities and communication.

<u>Clinical components in the Two Year Diploma Nursing Program</u>--learning experiences in clinical areas in medical, surgical, pediatric, maternity and psychiatric nursing that enable students to apply knowledge, develop judgement and acquire skills essential in giving nursing care.

<u>Registered Nurse</u>--any person who demonstrates that he/she has met all the requirements for registration as laid down in the Registered Nurses' Act, and current registration policies approved by the provincial regulatory body.

<u>Practitioner</u>--a Registered Nurse with required educational preparation and demonstrated competence who is engaged primarily in the direct care of patients (R.N.A.B.C. Position Paper, May 1977).

<u>Health Care Agency</u>--an organization which furnishes health care services including services to promote and maintain health and to prevent, diagnose and treat illness.

<u>Nursing Unit</u>--any area where nursing care is provided, such as specific units in a general hospital, or community health centres.

<u>Nursing Care</u>--the sum total of activities performed by the nurse to aid in promoting the patient's well-being.

<u>Auxiliary Nursing Personnel</u>--licensed practical nurses, orderlies, aides and volunteer workers.

Nursing Process--the knowledgeable and purposeful series of thoughts and actions encompassing assessment, goal setting, approach and evaluation (R.N.A.B.C. Position Paper, November 1977).

Limitations of the Study

Data collected in the study were limited to two graduating classes from BCIT, the July 1978 and the March 1979 classes. The data were obtained from a questionnaire which was dependent upon returns through the mail.

Since differences in curriculum content of individual schools may alter the learning needs of their respective graduates, the sample cannot be said to be completely random. The findings, therefore, may not be generalized as being the perceived needs of all graduates of two year diploma programs in nursing.

The study is concerned only with the perception of the graduate's learning needs and not his/her actual performance level.

CHAPTER II

REVIEW OF RELATED LITERATURE

The literature review in this study will focus on four main areas: 1) nursing education--a historical perspective; 2) the development of the two year diploma program in nursing education in Canada; 3) theoretical and clinical components in the two year diploma program in nursing education; and 4) research findings in the effectiveness of the two year diploma program.

Nursing Education: A Historical Perspective

Early Nursing

Almost every textbook in nursing history makes reference to the origin of nursing under religious or monastic orders (Williamson, 1976). According to Deloughery (1973), the two great influences that shaped nursing practice in the Middle Ages were the military and the church. Nursing needs were met by groups of uneducated or untrained women, by members of the family or by religious or military groups whose prime function was not nursing. Stewart (1945) states that in ancient times, nursing was considered a religious vocation rather than a medical one and thus it accumulated a body of traditions and customs differing from medicine. There has been little recorded about nursing as a unique and organized function prior to the birth of the Christian

church (Grippando, 1977). Since that time the influence of both the church and the military can be traced down through history.

Christianity provided nursing with the status and motivation that attracted women of wealth, social status, intelligence and dedication (Innis, 1970; Grippando, 1977). The development of religious orders, who showed their love of mankind through charity and mercy, gave women an opportunity to find a respectable place in society by performing duties that were considered meaningful (Grippando, 1977). These early sisters were bound by vow to the cloister, celibacy, poverty and care of the sick (Innis, 1970). Unselfishness, obedience and total devotion was expected by all members (Grippando, 1977). The monastic system, with its centralized authority and almost absolute control of their members, provided a machinery well adapted to training groups of workers (Williamson, 1976).

Stewart (1945) writes that there was no specific education as such. Nursing, considered a manual art, had little place in a monastic school as a subject of study or as an intellectual discipline. Novitiates were taught reading, writing, and elements of domestic, agricultural, industrial and manual arts. The latter was picked up chiefly through practice.

According to Grippando (1977), emphasis was placed on the comfort and care of the sick and care of the spiritual needs of the individual. The nurse's role was custodial and palliative rather than the treatment of disease. Besides performing basic nursing care, the sisters functioned as visiting nurses and social workers and became the roots of organized nursing.

Admission requirements varied with the different religious orders but all stressed moral fitness and religious purpose. Certain social, economic and educational requirements tended to restrict membership to those of better birth and breeding (Stewart, 1945).

The military influence began during the Crusades. According to Grippando (1977):

> During the Crusades the military orders discovered that their Moslem enemies cared for the sick in organized facilities, so the Crusaders built similar hospitals near the battleground. The members took turns fighting and nursing the wounded (p. 32).

Griffin and Griffin (1969) state:

> The natural places for the establishment of hospitals were the outposts, particularly Jerusalem itself, in which those wounded in battle sought refuge while they recovered. The hospital had to be staffed by physicians and nurses who were members of the regular orders. The nurses went to battle and then retired to attend the sick. They were called "Knight Hospitalers" (p. 12).

The Knights of St. John of Jerusalem was the most influential military order and was the forerunner of the Red Cross and the St. John Ambulance Association (Griffin and Griffin, 1969; Grippando, 1977; Stewart, 1945). Originally this order consisted of a small group of monks who cared for the sick and as the need for more organized nursing was recognized volunteer knights joined the order (Stewart, 1945). As time progressed, the order known as the "Hospitalers" grew in size and influence and became less monastic and more military. In the Knights of St. John of Jerusalem and other orders of knights and hospitalers, military and monastic ideals and forms of organization coalesced to form a new type of order that played a dominant role in

hospital and nursing work for several centuries (Stewart, 1945).

Corresponding orders for women tended to female patients in special hospitals but gradually the role of the nurse was taken over by these women branches. Authority, obedience, devotion and strict discipline were emphasized (Griffin and Griffin, 1969; Grippando, 1977; Stewart, 1945; Williamson, 1976). These characteristics have been a part of organized nursing through the ages and it has only been in recent years that there has been any modification to this approach to allow for individual decision making (Williamson, 1976).

Thus it can be seen that both religious as well as military influences played a great role in the shaping of early nursing functions and that nursing practices carried out today reflect these major influences.

Early Canadian Nursing

The first trained nurses were introduced to Canada by the Jesuits in the 1600's (Leaf and Lamp, 1968). The strictness of religious vocation and the tradition of nursing as a religious duty were dominating influences upon the pattern of early nursing (Leaf and Lamp, 1968). Jean Mance was an outstanding nurse of the period (Weir, 1932; Griffin and Griffin, 1969). Her contributions to the early life of a new country as a colonial administrator, as well as a leader in nursing and relief work are well documented and she is credited with ensuring the existence of the new settlement (Weir, 1932; Stewart, 1962). Historians extoll the courage and persistence of these early nursing sisters despite the hardship endured during the pioneer

days of a new continent. They maintained high standards of service in spite of repeated small pox and typhus epidemics brought by immigrant ships, fires that destroyed their hospitals, crop failures and Indian massacres (Leaf and Lamp, 1968).

As immigration to the new continent increased and the development of Canada slowly progressed westward, English speaking non-secular hospitals began to appear. Outside of the religious orders there were no formal programs available to teach nursing skills to lay personnel (Leaf and Lamp, 1968). Conditions in the new hospitals were deplorable. The lay sisters were poorly educated and inadequately trained. Their training was obtained through on-the-job practice and they used skills and remedies that had been found effective by themselves, or by other nurses, with whom they might have served as apprentices (Innis, 1970). Nursing offered little attraction to lay women (Leaf and Lamp, 1968).

Dr. F.J. Shepherd describes the situation at the Montreal General Hospital, in a history published by the Montreal General Hospital Nursing School Alumni Association:

> In my day (the 60's and after), age and frowsiness seemed the chief attribute of the nurse who was ill-educated, and was often made more unattractive by the vinous odor of her breath. Cleanliness was not a feature, either of the nurse, the ward or the patient; each one did as best pleased her, and the "langwidge" was frequently painful and free. Armies of rats frequently disported themselves about the wards, and picked up stray scraps left by the patients, and sometimes attacked the patients themselves (Leaf and Lamp, 1968, p. 30).

Florence Nightingale

The concept of nursing as an economic, independent and secular vocation, an art requiring intelligence and technical skill as well as devotion and moral purpose was first developed by Florence Nightingale (Deloughery, 1977). Her influence on nursing and the development of nursing schools has been profound. Writers of nursing history credit her with providing nursing with concepts based on sound educational principles and a high regard for personal ethics (Griffin and Griffin, 1969; Grippando, 1977; Dolan, 1973; Deloughery, 1977).

Grippando (1977) writes of her administrative skills and success of her innovative nursing interventions during the Crimean War, which led to many awards and the establishment of a fund which enabled her to establish a training school for nurses. In 1840 she was able to put into effect a program designed to provide the kind of nurse she envisioned--one who would provide quality services directly related to the needs of society. She had long advocated the establishment of nursing education in a supervised educational setting, independent of nursing service. She planned to produce educated, trained nurses, who upon graduation would establish other training schools. An important objective for her was that nursing students should be taught and supervised by nurses who were qualified and competent (Grippando, 1977).

She believed that nursing was both an art and a science, and as a profession was based on fundamental principles quite distinct from the medical profession (Stewart, 1945; Grippando, 1977). To provide that quality of nursing practice she believed

nurses should be trained in a program of systematic instruction which correlated clinical practice and theory. She had long been a patient advocate, that is, holding the belief that the patient should be treated as a whole person and not as a disease entity (Grippando, 1977).

Her belief that nurses should be beyond reproach in character and morals led to the establishment of nurses' residences. Nursing students lived in a disciplined environment and were closely supervised by a house mother. She felt that all graduates should live in a nurses' residence so that the school could continue to influence their lives and practice (Stewart, 1945).

Although Nightingale is best remembered for her work in hospital organization and nursing education, she also made valuable contributions to health reform in prisons, workhouses and in the military (Grippando, 1977).

Introduction to Organized Nursing in Canada (1860-1893)

Following Nightingale's pattern, a training system for nurses was set up in England and eventually in the United States and Canada (Leaf and Lamp, 1968). Although Nightingale's philosophy was widely accepted, the establishment of nursing schools in Canada and the United States lacked one important component--financial and administrative independence (Innis, 1970). The first hospital school in Canada, based on the Nightingale principles was established at the Mack Training School for Nurses in 1874. This school introduced the concept of apprenticeship training for nurses. The new program proved to be

a great asset to hospitals (Stewart, 1945; Mussallem, 1964; Innis, 1970; LaSor, 1977). As more hospitals realized the potential for nursing service, more hospital nursing schools developed (Mussallem, 1964). The schools became completely dependent on the affiliating hospital for finances and their policies were formulated by the voluntary board appointed to administer the hospital (Innis, 1970).

Mussallem (1965) writes:

> From the outset the aims of the hospital were in conflict with the aims of the school of nursing. The nature of the development of schools and of the learning experiences they offered indicated that their purpose was to provide charitable service rather than education. Students were admitted to the school and immediately assigned to the wards as workers. Teaching was incidental (p. 6).

A student's life was far from attractive. According to Stewart (1945), the student nurses were isolated in a residence with strict house rules. These rules were enforced by a house mother who reported wrong-doers to the superintendent, whose role, in turn, was that of an authoritarian figure who demanded deference and obedience while meting out stern discipline (Innis, 1970). The military influence was notable in its pomp and ceremony and attention to rank and official insignia (Williamson, 1976).

She goes on to say:

> Many of the customs and traditions in nursing can be traced to military origins from the Knight hospitalers as well as from nursing's military associations during many wars. The custom of saluting a superior was evidenced for countless years in training nurses to rise from their chairs when addressed by a physician. Nursing students were ingrained with a sense of

deference so great that they allowed everyone to precede them through a doorway or on to an elevator....

Most important of all was the specific concept of unquestioning obedience.... The phrase "ours not to question why, ours but to do or die", became a proverb nurses would do well to follow. Nursing students were taught to obey an order, quickly and spontaneously, under the guise that it could be a matter of life or death (p. 5).

In describing early Canadian schools of nursing Street (1973) states:

...its students were expected to carry the heavy load of nursing service in the hospital. Instruction was elementary, irregular, and given mainly by staff doctors. Posting of students to various wards was influenced, if not dictated by the needs of the institutions. Hours of duty were long, living accommodation and food left much to be desired, and health hazards were severe. Military discipline regulated the lives of students, a legacy of the system established forty years earlier by Florence Nightingale based on the exigencies of the situations in civilian and military hospitals. But the endowed school of nursing which she founded in 1860 in association with St. Thomas's Hospital, London, exemplified a basic principle, the educational independence of the school. This important principle and precedent were not followed in the subsequent establishment of training schools by hospitals (p. 21).

While the most important component of Nightingale's principles was lacking in the new schools, certain other principles were inherent (Innis, 1970).

Women, as well prepared in nursing as the time allowed, were placed in charge of the schools.... She was in charge of the hospital and the training of nurses.... The educational needs of the student were being subordinated to the nursing needs of the patients. With this dilemma she struggled in isolation, since she was held responsible both for the nursing service to the patient and for the education of the nursing students, and frequently for the administration of the hospital as well. In proportion to the superintendent's imbued conscientiousness, the conflict became more acute and ultimately the imperative demands of the suffering patient had to take precedence. Thus the

> nursing needs of the patient and the educational needs of the student were placed in continuing conflict (Innis, 1970, p. 114).

As the need for organization and legislation in nursing became more evident, the nursing superintendents of the United States and Canada met together to share mutual concerns (Innis, 1970). The exploitation of the student became a big issue and this group formed the American Society of Superintendents of Training Schools in the United States and Canada in 1893. The objectives of the association were to set educational standards regarding admission and curriculum; to develop some legal controls in an attempt to prevent the spread of poor schools and prevent the unlimited expansion of schools (Mussallem, 1964). This association provided leadership in the attempt to improve educational standards and formed the nucleus for the National League of Nursing and the Canadian Nurses' Association (Mussallem, 1964).

Historical Landmarks in Canadian Nursing (1874-1924)

During this half century, the development of the Canadian west was seen and the provincial and local governments' efforts to provide essential services for new communities were evident (Street, 1974). District, school, municipal, industrial and other public health nursing functions were developing, providing new outlets for skilled nurses (Leaf and Lamp, 1968).

During this period, many firsts in the history of Canadian nursing were seen. In 1905 the publication of the journal <u>The Canadian Nurse</u> began. In 1907, the Canadian Society of Superintendents of Training Schools for Nurses was formed with

one of its chief objectives to consider all questions relating to nursing education. The first nurse was elected president of the Canadian Hospital Association. The first major history of nursing in America by M. Adelaide Nutting and Lavinia L. Dock was published. The first standard text in nursing schools in America was published. In 1908, the Canadian Nurses Association of Trained Nurses was formed--precursor to the Canadian Nurses Association--and in 1909 was accepted as a member of the International Council of Nurses (Leaf and Lamp, 1968).

Nova Scotia was the first province in Canada to have nursing legislation passed, 1910. This provided a form of voluntary registration for graduate nurses. There was an examination and a board of examiners and any non-graduate nurse could join the nurse registry by passing the examination. In 1913 Manitoba became the first province to obtain a Registration Act and make stipulations for nursing school standards, registration and discipline for practicing nurses. By 1914 all provinces except Prince Edward Island had formed a provincial association (Leaf and Lamp, 1968).

In 1914, the recommendations of a special committee on nurse education presented to the Canadian Nurses' Association included:

> ...establish nurse training schools or colleges in connection with the educational system of each province, the raison d'etre of which will be the nurse, not as it is under the present system, the lessening of the cost of nursing in the hospitals. These schools should be separate in organization from the hospitals. The hospital will be used to supply the practical training... (Leaf and Lamp, 1968, p. 84).

While it was not possible to implement the recommendations, attempts to upgrade nursing education continued.

The American Society of Superintendents of Training Schools of the United States and Canada were opposed to the service-oriented type of preparation which exploited the student nurse (Mussallem, 1964). Through their efforts, the first significant move to initiate standards in nursing in the United States was introduced with the publication of "The Standards Curriculum for Schools of Nursing" in 1917 (Leaf and Lamp, 1968).

Mussallem (1960), in discussing the pattern of general education in Canada, states that the educational programs have taken a variety of forms, influenced largely by new educational ideas from the United States and from across the Atlantic. She goes on to say that nursing programs are no exception. Because of the proximity of Canada to the United States and

> ...the similarities in culture and educational philosophy, many of the surveys and the literature related to nursing have been used on both sides of the border. As might be expected nurses in the United States have produced many more studies, and have written far more prolifically than nurses in Canada. The nursing literature from the United States has had a great impact on the development of nursing in Canada (p. 30).

Stewart (1945) states that:

> ...the two countries were never far apart in their nursing reforms, and the general trends in nursing education have always been in much the same direction and at about the same time (p. 128).

Despite efforts to upgrade nursing education, conditions in diploma programs remained poor. The hospitals continued to exploit nursing students, lack of teachers and textbooks, poor food and housing, long hours of duty and in small hospitals,

the lack of clinical experience, continued (Innis, 1970).

Nursing leaders in both the United States and Canada recognized the need for a program to prepare nurses for training school administration and teaching. They approached Teachers' College, Columbia University with the idea of establishing a program to train teachers for nursing schools. A one year program was established in 1899 (Street, 1974). Since there were no nursing programs in Canadian universities at that time, Canadian nurses wanting further educational preparation were forced to leave Canada.

Nursing leaders in Canada recognized the need for university nursing programs and in 1905 approached the University of Toronto requesting that a program for the training and education of nurses be established (Innis, 1970). In 1919, the first baccalaureate degree course in the British Commonwealth was introduced at the University of British Columbia, modelled on the program at Teachers' College and the Cincinnati University school of nursing. It consisted of two years of hospital experience, and a final year in which the student elected, as a major focus either teaching or public health (Street, 1973). This became the Canadian prototype of non-integrated "two plus two plus one course". Subsequently other nursing programs were established in a number of other Canadian universities modelled on the same general pattern (Innis, 1970).

The inherent weakness of the non-integrated program of baccalaureate nursing education was the lack of control by the university of the critical clinical portion of the curriculum

(Street, 1974). She comments:

> ...viewed within the context of the period, one in which young universities and their schools of nursing were hampered by insufficient funds and lack of qualified teachers, one can readily understand why the non-integrated system began, but once firmly rooted, the pattern proved difficult to change (p. 8).

Following World War I, the need for nurses qualified in the expanding field of public health prompted the Canadian Red Cross to approach several universities with an offer of financial assistance to establish nursing programs to meet this need. Six universities responded and started the one year certificate course in Public Health in 1920-1921 (Innis, 1970).

Meanwhile studies were being conducted in the United States and the 1923 Goldmark report on Nursing Education in the United States had considerable impact on the nursing profession both in the United States and Canada. This report was the impetus for United States and Canadian groups responsible for health services to conduct other studies aimed at reform in nursing schools (Mussallem, 1964).

Canadian Nursing Education From 1925-1949

The Goldmark report published in the United States in 1923 pointed out the deficiencies in the apprentice-hospital-oriented system of nursing education (Mussallem, 1964). The growing awareness in Canada that the training of nurses was unsatisfactory and was not attracting sufficient numbers of capable young women to meet the needs of a growing society, led to a Joint Study Committee of the Canadian Medical Association and the Canadian Nurses' Association in 1927 (Mussallem, 1964). As a result, a

survey of nursing education sponsored by these two groups, was conducted by George M. Weir, a sociologist and a professor of education at the University of British Columbia. The report published in 1932, identified serious weaknesses in nursing education and proposed radical changes (Weir, 1932). The report showed that the social and educational principles governing nursing education did not differ fundamentally from those governing other branches of education. However, these principles were often violated in nursing schools (Weir, 1932). He goes on to say:

> ...the consensus of evidence supplied by nearly 8,000 questionnaires...bearing on nursing problems, the preponderance of the views expressed by 650 conferences and meetings attended by over 10,000 nurses, doctors, student nurses and members of the laity at points well distributed throughout Canada...all...endorse the view that radical and far-reaching reorganization of the nursing services of Canada should be undertaken in the near future.... (p. 477).

He further recommended that:

> ...as soon as possible the training schools for nurses be established primarily as an educational institute, closely affiliated with a hospital but enjoying financial independence as do other educational institutions that perform a national service. Not until such independence is achieved will it be possible for the average training school to put into effect an adequately educational curriculum (p. 378).

The essence of his recommendations were: abandonment of the apprenticeship system; the adoption of standards more characteristic of general education as found in modern teachers' colleges or universities; the integration of nursing education into the provincial educational system (Weir, 1932).

The Weir report came as the depression was making its effects felt. Despite the socio-economic ills of the times, attempts to implement Weir's recommendations were initiated (Street, 1974). In 1936, the Canadian Nurses' Association produced a curriculum guide, "A Proposed Curriculum Guide for Schools of Nursing in Canada", in an attempt to facilitate some of the changes recommended in the Weir report (Mussallem, 1964).

In the years immediately following World War II, reforms in diploma nursing education were slow in developing due to the shortage of nurses, decreased enrolment in schools of nursing and an insufficient number of qualified instructors (Innis, 1970). Realizing that the nursing education dilemma was only one problem faced by post-war governments, the nursing profession established the Metropolitan Demonstration School of Nursing in 1948 to demonstrate its convictions in a positive and concrete manner (LaSor, 1977). With this Demonstration School, it was hoped to establish the idea of a nursing school as an educational institution and to demonstrate that a skilled clinical nurse could be prepared in two years if the school controlled the student's time (Leaf and Lamp, 1968). The report of this study, by Lord, a professor in the Department of Education, University of British Columbia, stated that the objectives of the demonstration had been met (Lord, 1952). The report states:

> The conclusion is inescapable...when the school has complete control of the students, nurses can be trained at least as satisfactorily in two years as in three years and under better conditions but the training must be paid for in money instead of in service.... (p. 54).

Although some improvements in diploma nursing education did occur, substantial changes did not occur for a number of years.

During this period changes in the university nursing programs occurred. In 1942 the University of Toronto introduced an integrated basic course combining general education in the humanities and sciences with specialized education in nursing. The curriculum integrated two aspects of professional education and was planned so that one would strengthen the other. Full authority and responsibility for teaching nurses rested in the university. Nursing courses were planned, taught and evaluated by full time university nursing faculty. This new program changed university education in nursing in Canada. An intellectual component in nursing was accepted and more clearly aligned nurse education to that of established professions within the university (Innis, 1970).

On the national scene, the federal government established the National Health Grant Program in 1948 to assist existing public health and related programs and to prepare the way for a hospital insurance program. The government also provided, on a matching basis with the provinces, grants-in-aid of hospital construction and renovation to meet the increasing needs for adequate hospital facilities. At the same time, Professional Training Grants were made for advanced preparation of personnel for health services (Mussallem, 1964).

Canadian Nursing Education From 1950-1964

During this period some improvements in hospital schools did occur. The unnecessarily restrictive supervision and disciplinary measures were relaxed and improved educational programs were begun (Mussallem, 1964).

According to Russell (1956) hospitals were beginning to question the old system of nursing education. In 1950 the Toronto Western Hospital undertook a five year pilot project to improve the quality of nurse education in a hospital-owned school and to increase the number of recruits for the nursing profession (Wallace, 1955). The revised program followed the example of the Metropolitan Demonstration School in that the school had control of the student nurse's time for both classroom and clinical learning experiences in the first two years. The student was required to spend the third year in the hospital's nursing service before being eligible for registration. This was called the "two plus one program" and became popular in Ontario and some of the other provinces (Innis, 1970).

Results of this program indicated that a revised two year course had produced, from the academic viewpoint, results far superior to the old three year course. Moreover the rate of enrolment of students in the school had increased by twenty-five percent (Wallace, 1955). The Wallace report in 1955 concluded:

> Is there any valid reason why the education of nurses should not receive from public funds the same support as is given to the education of engineers, architects, teachers.... (p. 17).

The Canadian Nurses' Association had long believed that national accreditation, based on standards set by the whole

profession, would provide the key to improved nursing education across the country and would keep nursing abreast of scientific and social changes (Mussallem, 1960). In 1957, the Association financed a study to determine if national voluntary accreditation of diploma school programs was feasible or desirable. Mussallem (1960) undertook a "Pilot Project for the Evaluation of Schools of Nursing in Canada", which lasted from 1957 to 1959, concluding that a national program for accreditation was neither feasible nor desirable (Mussallem, 1960). LaSor (1977) goes on to say:

> The basic reason was alarming: 84% of the schools surveyed failed to meet the proposed criteria for national accreditation. Thus, the first national survey of nursing education since the Weir study in 1932, arrived at conclusions distressingly similar to those reached by Weir a quarter-century earlier (p. 159).

The basic recommendations from the Mussallem study published in 1960 include:

1. A re-examination of the whole field of nursing education.
2. The initiation of a school improvement program to assist schools in upgrading their educational programs.
3. The establishment of a program for evaluating the quality of nursing service in areas where students in schools of nursing receive their clinical experience (Mussallem, 1960).

Despite mounting pressure for change and the growing public awareness for the need to extend and improve the care provided by the state for its citizens, isolated action in the nursing educational scene resulted (LaSor, 1977). The Royal Commission on Health Services in Canada set up by the federal government in 1961 "to enquire into and report upon the existing facilities and the future need for health services for the people of Canada", did

much to focus thought and discussion on the future of nursing and its contribution to the health services of the country (Royal Commission Report, 1964).

The commission requested a survey of nursing education to examine, describe and analyze formal educational programs for nurses and make proposals for needed change. The study conducted by Mussallem (1960) revealed serious weaknesses in the education of nurses in Canada. Moreover the study saw no fundamental change in the system of nursing education since its initiation into the country eighty years previous and that weaknesses pointed out in the previous surveys of nursing over the past thirty years had not been remedied (Mussallem, 1964).

Some of the major problems Mussallem documented were: confusion over the purpose of a school of nursing and the type of education students should receive; conflict of purpose between educational and service activities in hospitals; lack of financial support for program development; lack of desirable clinical settings for students; and a lack of qualified instructors. While improvements were attempted, it was recognized by nursing leaders that until schools were autonomous and independent, the fundamental weaknesses of the system would continue because these improvements were only attempts to patch up an "out dated" system (Mussallem, 1965).

An alternate program in diploma nursing education emerged with the development of the two year program at the Nightingale School of Nursing in Toronto in 1960. This regional school, established by the Ontario Hospital Services Commission,

controlled the educational program and utilized the resources within a geographic area (Innis, 1970).

This section has presented a historical review of nursing in Canada, showing that the nursing profession has continually endeavoured to improve its practices through the improvement of nurse education. The many problems encountered in nursing are not subject to assessment and solution by nurses alone but are part of the total health problem of a nation with ramifications in medicine, education, government and economics (Mussallem, 1965).

Development of the Two Year Diploma Nursing Program in Canada 1964-1979

The belief that nursing education should occur within the general system of education has been a desired goal of organized nursing since the beginning of the century (M. Allen, 1971). The review of literature, thus far, has traced the history of nursing education in Canada up to the formation of the Royal Commission on Health Services in Canada set up by the federal government in 1961. The commission in its study of health needs of the Canadian people attempted to isolate the major problems confronting the health professionals and considered alternate methods of resolving these problems. One of the persistent problems identified was the inadequacy of health personnel, especially nurses (Mussallem, 1965).

The 1961 Royal Commission on Health Services gave Canadian nurses the opportunity to make a concerted effort to transfer the diploma nursing education from hospital jurisdiction (M. Allen,

1971). Recommendations were submitted from nursing associations, schools of nursing and other groups suggesting major changes in nursing education. All recommended the transfer of schools of nursing to the general system of education or as independent, autonomous schools (Mussallem, 1960).

The features of nursing education desired by the nursing profession are summarized by M. Allen (1971):

1. The general education of the nurse beyond high school be extended--language, history, political science, philosophy, etc.
2. Augment the nurses' scientific knowledge, both qualitatively and quantitatively--biology, sociology, psychology, physiology, etc.
3. Nursing as part of an educational institution where both faculty and students could associate, work and learn with their counterparts from other fields who were also engaged in obtaining a sound general education and scientific base for one of the technologies.
4. Availability of a multitude of resources of the larger educational institute as part of the community.
5. Control of the students' learning experiences in the hospital or agency situation and the elimination of service requirements characteristic of the hospital school of nursing.
6. Opportunity for students to make arrangements for living accommodations satisfactory to them, in lieu of the residential requirements in the hospital school of nursing, thereby fostering independence in the student and lessening the effects of the "total institution", the residence and hospital (pp. 15-16).

The 1964 report of the commission supported the suggestions related to nursing education and in recognition of the immediacy of the problems, suggested measures to improve the quality of the diploma education in the hospital schools of nursing. However, to insure that "the educational system for nursing should be organized like other forms of professional education", other recommendations were made, such as:

> ...the educational system for nursing should be organized and financed like other forms of professional education...and that a new curriculum be established to lead to a diploma in two years (pp. 64-65).

To assist the implementation of this recommendation, the commission further suggested that a Nursing Education Planning Committee be formed in each province. Saskatchewan was the first province to implement this recommendation and in 1966 transferred nursing education to the Ministry of Education. A board of Nursing Education was set up which was responsible to the Minister. In 1966 there was an amendment to the province's Department of Education Act and the Nurse's Act of 1966 was passed. This resulted in the phasing out of all the province's hospital schools of nursing and led to the eventual inclusion of all diploma schools of nursing with the province's educational system (Innes, 1970; LaSor, 1977). Gradually the other provinces followed suit.

Another important influence at this time that helped in implementing the transition of nursing education into the general education system was the establishment of the community college system in the 60's. The community college provided the location for diploma nursing outside of hospitals and for the establishment of an independent, autonomous school of nursing (M. Allen, 1971). The evolution of the community college system in Canada was influenced by complex social forces, new emphasis in educational reform, a re-evaluation of national and provincial manpower needs and an increasing demand for post secondary education (Dennison, 1975). The number of community colleges has steadily increased.

in the last fifteen years and as the number increases, so the number of two year diploma nursing programs initiated in this setting, has increased.

As has been discussed previously in this literature review, early nursing preparation was undertaken by hospitals where nurses worked in an apprenticeship program and received training solely within the hospital. Hospitals tended to provide "nursing training" rather than "nursing education" and thus nursing training was technique-oriented with a focus on specific individual procedures required for patient care. The student's experience was limited to one hospital and therefore the training could not be generalized to other hospitals or health care settings.

The development of the two year program in nursing education in Canada reflects the recommendation outlined by Mussallem in 1965. She recommended that:

> ...the development of educational programmes should not follow a set pattern or be standardized. Schools should always have freedom to develop a programme to meet their own objectives and these objectives should be in harmony with the health goals of the community (Mussallem, 1965, p. 138).

She further recommended that the development of the two year diploma nursing program in Canada consider the characteristics of diploma programs as identified by Montag (1959).

> The first characteristic of the new nursing curriculum is that it includes both general and specialized education....Therefore, general education accounts for from one-third to one-half of the curriculum, with specialized education, or nursing, accounting for the remaining two-thirds or one-half...
>
> The second characteristic of the curriculum is that the specialized or nursing courses have been

> recognized and placed in a different sequence. Instead of the numerous small courses found in the traditional nursing curriculum, the content and learning experiences have been grouped around a central theme into fewer courses.
>
> A third general characteristic of the curriculum is its use of the many facilities for rendering health services which each community provides.
>
> A fourth characteristic of the new type of programme is its duration over a two year period, though the term two year is variously interpreted (Montag, 1959, pp. 70-80).

Three other characteristics of both the professional and diploma programs identified by Montag are that the faculty members of the program be selected, appointed, and paid by the university or college; that the students enjoy the same status as all other students; and that the curriculum be controlled and financed by the educational institution (Mussallem, 1965, p. 128).

During the hearings of the Royal Commission on Health Services, submissions by nursing groups, specifically the Canadian Nurses' Association, visualized a new type of nursing program "at the post high school level, under the jurisdiction of institutions whose primary function is education" (CNA, 1962, p. 31). The genesis of this concept led to the establishment of the first diploma program in nursing conducted within the system of general education in Canada at the Ryerson Polytechnical Institute in 1964.

In 1967, the first central nursing school in Saskatchewan was established in the Institute of Applied Arts and Sciences in Saskatoon (Innis, 1970). That same year, the first two year diploma program within the provincial education system in British Columbia was initiated at the British Columbia Institute of

Technology. Two year diploma nursing programs have been developed in all other Canadian provinces since that time.

In summary, then, by the 1970's the development of the basic two year diploma nursing program within the general educational system had been firmly established within colleges and other post-secondary institutions of learning in Canada. The goal which organized nursing had tried so hard to effect seems to have been realized.

Theoretical Components in the Two Year Diploma Program in Nursing Education

A review of the two year diploma nursing programs shows that they all have similar objectives with slight variations on emphasis and interpretation. One of the objectives common to all programs is to prepare graduates for the examinations which will allow them to achieve professional status as Registered Nurses. Other examples of objectives stated by various programs are:

> ...the graduate of the program will be prepared to seek employment in general hospitals or other health care agencies where a comparable level of nursing care and judgement are required (BCIT, 1976).

> ...to prepare the students for carrying out nursing activities related to the direct care of healthy, mentally and physically ill persons in a variety of settings, including the hospital and the home (Langara, 1977).

> ...a graduate should be capable of carrying out the responsibilities of a nurse in a first level position in nursing (Humber College, 1975).

> ...the graduation of nurses who will be qualified to accept positions as staff nurses in active treatment hospitals or other institutions (Ryerson, 1971).

In order to meet these objectives schools of nursing develop their own programs in terms of both curriculum content and structure. However, programs are based on guidelines and standards provided by the regulatory body and statutory regulations of each province (Mussallem, 1965).

Nursing curricula in the two year diploma program are focused on developing the student's learning experience around common problems of nursing practice (Innis, 1970). The programs differ in their approach to curriculum development.

Five basic approaches to nursing curricula frequently seen today are: 1) the developmental levels approach; 2) the patient-centred approach; 3) the major health problems approach, 4) the biological systems approach; and 5) the homeostatic approach. These are discussed more fully below.

1) <u>The developmental levels approach</u> is based on the philosophy that the special needs and problems occurring at designated points in the growth cycle are results of the developmental level attained by the individual. This approach focuses on stages of human growth and development and emphasizes the unique aspects of various stages of individual growth. This type of curriculum relates to all courses of study within the nursing program and unites them in a common bond (Zeitz, 1969; Story, 1974).

2) <u>The patient-centred approach</u> transcends all of the specialty areas of nursing. That is, a problem that is presented in a content area can be taught in the clinical area regardless of the location. This approach utilizes problem-solving

techniques and the student learns and implements broad concepts according to the specific needs of the individual patient (Zeitz, 1969; Story, 1974).

3) The major health problem approach defines a major health problem as one that: a) affects the health status of a large group of citizens on local as well as national scenes, b) occurs most frequently, and c) is the direct cause of morbidity or mortality. As a consequence this approach reflects national and community health needs and provides instruction which attempts to bridge the gap between past and present influences of illness (Zeitz, 1969; Story, 1974).

4) The biological systems approach is developed on the medical model and curriculum is organized into discrete nursing courses including medical nursing, surgical nursing, pediatric nursing, obstetric nursing and psychiatric nursing. This approach attempts to integrate core curriculum with the clinical specialties (Zeitz, 1969; Story, 1974).

5) The homeostasis approach is based on the philosophy that homeostasis is a state of constant change in which there is a balance of the necessary substances of life. It maintains that body cells require a constant environment to maintain and preserve health. The content in this curriculum approach evolves around those factors that aid in the maintenance or restoration of homeostasis (Zeitz, 1969; Story, 1974).

As the programs and curriculum approaches vary with the individual school, so does the terminology vary. Thus the biological systems approach might be referred to as the medical

model or the homeostasis approach might be referred to as the stress approach (Story, 1974).

Clinical Components in the Two Year Diploma Program in Nursing Education

The purpose of the clinical experience is to enable students to unite theoretical learning with real life practice. It also provides opportunities for the student to participate as a member of the health team (Ministry of Colleges and Universities Report, 1978). In clinical experience nursing tasks and problems are encountered which the students might not have encountered before (Zeitz, 1969). The clinical experience is coordinated so that the student can see the relevance of what is being taught in the classroom and learn to apply this knowledge in a real setting (Ministry of Colleges and Universities Report, 1978). The clinical experience consists of nursing laboratories and patient contact in clinical settings.

Nursing laboratories are simulated experiences in classroom settings. They may accompany both nursing theory courses and science courses. They are coordinated with theory presentation to enhance the academic content through demonstration, giving the student the opportunity to develop and practice nursing skills prior to experience in the clinical setting (Zeitz, 1969).

Patient contact in clincial settings is included in the early weeks of the program, to provide the student with realistic learning and practice situations (Ministry of Colleges and Universities Report, 1978). Most of the student's clinical experience takes place in hospitals, although a number of other

settings are also used to provide a broader range of experience. Nursing homes, community health centres, and mental health facilities offer different types of nursing problems and practice than do hospitals (Ministry of Colleges and Universities Report, 1978).

Rogers (1961) states that the length of time that students spend in particular clinical settings does not necessarily reflect the amount or degree of learning that takes place. What makes the clinical experience successful is the quality of theoretical preparation and the selected learning experiences which meet the course objectives.

Instructors are present during clinical experiences to select the appropriate learning experience and to continue the teaching begun in the classroom (Zeitz, 1969).

It can be seen that theoretical and clinical components of the two year nursing diploma program have been designed to give students a broad educational background as well as provide them with appropriate clinical experiences in preparing them for the roles of a beginning nurse.

Research Findings in the Effectiveness of the Two Year Diploma Program

Much research related to the two year diploma nursing program has been carried out in the last twenty years. Most of the studies have come from the United States. However much these data influence Canadian nursing education, this section will deal primarily with studies conducted in Canada.

The first two year experimental diploma nursing program in Canada was initiated at the Metropolitan School of Nursing, Windsor, Ontario, in 1948 to demonstrate that a nursing school functioning as an educational institute could adequately prepare a clinical nurse in two years if the school exercised full control over the student's time. While this school was associated with a hospital, the school was the first to develop a curriculum geared to nursing education as distinct from the nursing demands of the hospital. The evaluation of this program presented in the Lord Report of 1952 stated:

> The conclusion is inescapable.... When the school has complete control of the students, nurses can be trained at least as satisfactorily in two years as in three, and under better conditions, but the training must be paid for in money instead of services (p. 54).

Following this successful demonstration some improvements in nursing education were attempted. The Toronto Western Hospital initiated a pilot project in 1950 which lasted five years, in which the school was given necessary administrative and financial independence to modify the program so that theory and experience related to the acquisition of basic nursing skills were provided in the first two years (Wallace, 1955). The Wallace Report of 1955 stated:

> ...the figures show that the revised two year course had produced, from the academic point of view, results far superior to the old three year course (p. 9).

These two studies played a major role in influencing the gradual development of two year nursing programs in Canada. Other studies of later programs are described below.

In 1968, McLeod and Peters conducted a study investigating the needs of graduates from two year diploma nursing programs in Canada. The study examined the needs of the graduates as perceived by head nurses who evaluated the graduate after three months of employment. The graduates were evaluated on their ability to perform nursing skills related to direct care of patients and management skills related to individual care of patients. Skills which were evaluated included: 1) ability to set priorities; 2) ability to make appropriate nursing judgements; 3) organizational ability; 4) communication skills; 5) ability to transfer theoretical understandings to clinical practice; 6) ability to adapt techniques and principles to new situations; and 7) ability to meet emergencies.

The results of this study found that the graduates were capable of performing nursing skills with little or average guidance. The study also found that the graduate required more guidance in management skills related to organizing activities on the three to eleven shift, in establishing priorities in giving nursing care, in interpreting doctor's orders, and in assuming the role of team leader (McLeod and Peters, 1968).

Among the recommendations made by the researchers was that graduates of the two year diploma nursing programs be helped to adjust to their first position in nursing by an in-service program designed to meet these needs (McLeod and Peters, 1968).

Costello and Castonguay (1969) published an evaluation of a two year experimental nursing program in Saskatchewan. This study included a follow-up of graduates, three, six and twelve

months after they entered the work force. The skills which were evaluated included: 1) the graduate's ability to apply nursing principles; 2) ability to make appropriate nursing judgements; 3) conscientiousness; 4) human relations; 5) organizational ability; 6) ability to function under pressure; and 7) communication skills.

The results of the study indicated that the students capably met the requirements for registration and the head nurse's expectations of beginning graduates.

In 1970, the Canadian Hospital Association conducted a survey to determine the

> ...representative opinion of responsible hospital personnel to the question: do graduates of two year nursing education programs perform hospital nursing duties as well as the three year graduates during the first few months following graduation?

Questionnaires were sent to six hundred and twenty-six eligible hospital personnel employed in thirty-six hospitals located in Alberta, Saskatchewan and Ontario.

The summary of the findings include:

> The majority of respondents supported the two year nursing education programs, and saw the need for an additional period of practical hospital experience to bring two year graduates up to the job performance level of three year graduates at the time of graduation. The additional experience was seen as necessary to prepare two year graduates to carry out their duties with full confidence in their nursing abilities, to care for a full quota of patients, and to accept the greater responsibilities of being on duty alone at night and on weekends (p. 1).

The Howard study (1971) examined the perceived learning needs of graduates of a two year diploma program in nursing during their first three months of employment. Data were

collected through a questionnaire and weekly diary entries kept by the graduates.

The results of the study indicated that the graduates perceived "little or no need for guidance" prior to and after three months employment in performing most of the activities required of general staff nurses in hospitals. However, the learning needs in which the graduates perceived a need for guidance related to activities in the provision of patient care, for orientation to the hospital nursing department and/or nursing unit, and for increased skill in undertaking leadership roles (Howard, 1971).

In 1971 Allen and Reidy published the evaluation of the Ryerson program, the first diploma program in nursing conducted within the system of general education in Canada. The report was a study of the first five years of the Ryerson nursing program and answered two questions posed by the Registered Nurse's Association of Ontario: 1) what type of nurse is being prepared through the Ryerson program, and 2) is it a practical way to prepare nurses?

The results of the study indicated that graduates of the Ryerson program were independent, flexible, capable of giving good nursing care, had a broad background and utilized principles in reaching and carrying out decisions. The findings also supported the idea that the nursing program at the Ryerson Institute was a practical way of educating nurses and that the Institute provided a nutritive setting for a nursing program (M. Allen, 1971).

Steed (1974), in evaluating students and graduates of college nursing programs in Alberta, studied students enrolled in five nursing programs. Information was collected through questionnaires sent to graduates and their employers. The study found that the graduates were able to qualify as registered nurses, were capable of performing the functions commonly associated with the registered nurse, and that they performed these nursing functions as well as or better than graduates with equal work experience.

Barras (1975) evaluated the Humber College Nursing Diploma Program through questionnaires prepared for graduates, employers, head nurses and nursing inservice personnel. The results of the study indicated that the graduates met the objectives of the Humber College Nursing Diploma Program in the work setting. The performance of the graduates were rated satisfactory by head nurses and rated as proficient by the graduates themselves. Both head nurses and graduates believed that the graduates carried out the responsibilities of a nurse in the first level position in nursing at least satisfactorily, and in many instances, proficiently, although there were discrepancies in the understanding of what the first level position in nursing constituted.

In 1977, the ARA Consultants Ltd., commissioned by the Ministry of Colleges and Universities of Ontario, carried out an evaluation of the college diploma nursing graduates in Ontario. Data were collected through the use of interviews, questionnaires, and nursing proficiency measures of individual nurses in activities representative of different aspects of the nursing

process. The graduates were assessed after three and one-half months working experience. The results of the study indicated that graduates of the college diploma programs in Ontario generally performed competently after six months of employment. However, at the two and one-half to three and one-half month period, when the graduates were assessed, significant deficiencies appeared in areas that caused considerable disruption in the normal operation of the hospitals.

Deficiencies in the graduate's performance were identified in the following areas: 1) the ability to plan and organize work assignments; 2) the ability to assume team leader responsibility; 3) the ability to supervise auxiliary staff; and 4) the ability to cope with emergencies.

Recommendations were made for revisions in 1) diploma nursing programs so that the proficiency of graduates might be increased, and 2) in hospital orientation programs for new graduates so that integration into the work setting might be easier. The specific recommendations in the diploma nursing programs included the following: 1) that the clinical portion of the program be strengthened; 2) that program objectives be clarified; 3) that clinical practice be increased to approximately three months; 4) that the relationship between hospital nursing staff and college faculty be strengthened so that common problems can be identified and appropriate objectives agreed upon; and 5) that the length of the diploma nursing programs be increased to twenty-three months.

The recommendations applicable to the work setting include: 1) that new graduates remain at a probationary pay level for three to six months in acknowledgement of their inexperienced state; 2) that an orientation to the work setting and position responsibilities be given; 3) that opportunities to identify learning needs be provided; 4) that college faculty be consulted when hospital orientation programs are planned; and 5) that on-the-job training or post-diploma courses for specialty areas be provided.

It would seem, then, that the two year diploma nursing program "which educates students who as graduates are prepared to give patient-centred nursing care in beginning staff positions" (CNA, 1967) has had some examination through a variety of research studies. It is also seen that such field research has helped to focus on program deficiencies, in addition to giving rise to program improvement. This literature review has attempted to provide background information on the history of nursing, the development of nursing education programs and the components of nursing education in Canada. It has also attempted to examine studies investigating the effectiveness of the two year diploma nursing programs in Canada.

CHAPTER III

DESIGN AND PROCEDURES

This chapter will outline the study design and discuss the procedures used in its implementation. The following topics will be discussed: the samples, the process of developing the questionnaire used in the data collection, the details of the data collection and data analysis.

The main purpose of this study was to determine the perceived learning needs of beginning graduates from the BCIT general nursing program. In order to carry out this purpose the following hypotheses were investigated:

1) There will be no significant differences between the perceived learning needs of the graduating students from the March 1979 class and the graduates from the July 1978 class, who have had three to six months work experience.

2) There will be no significant differences between the two groups in relation to their perceptions of their performance in the clinical area.

The Samples

The participants in this study were two groups of graduates from the BCIT general nursing program. One group consisted of those graduates from the July 1978 class, most of whom are

working as nurses at the time of the study and had been employed for a period of three to six months. In this group there were fifty-three females ranging in age from under twenty-one to over forty, and three males aged twenty-one to thirty-four. A more detailed description of this group is contained in Tables 1 and 2. For purposes of identification this group will be referred to as Group I.

The second group consisted of those graduates from the March 1979 class, most of whom had not begun to work as nurses at the time of the survey. This group consisted of fifty-four females ranging in age from under twenty-one to over forty, and three males aged twenty-five to thirty-four. A more detailed description of this group is contained in Tables 1 and 3. For purposes of identification this group will be referred to as Group II.

These two groups were selected because they were among the last students to graduate from the 1977 BCIT general nursing curriculum, and consequently represent the most recent opinions of graduates. This is particularly important since it is believed that a survey of recent graduates may provide useful information in the examination of the new nursing curriculum, initiated in 1978.

Questionnaire Development

The purpose of the questionnaire (see Appendix A) was to determine the preceived learning needs of two recent graduating classes from the BCIT general nursing program. Their responses

TABLE 1

A COMPARISON OF GROUP I AND II
SHOWING SEX, AGE AND MARITAL STATUS

Characteristic	Group I		Group II	
	Male n	Female n	Male n	Female n
Sex	3	33	3	33
Age				
Under 21	0	6	0	7
21-24	1	19	0	18
25-29	1	4	1	5
30-34	1	2	2	1
35-39	0	0	0	1
40 Plus	0	2	0	1
Marital Status				
Single	1	23	2	26
Married	2	7	1	6
Divorced	0	3	0	1

TABLE 2

NURSING EXPERIENCE - GROUP I

Employment Status	Group I Graduates n
Full Time	31
Relief	5
Positions	
Staff Nurse	32
Team Leader	4
Hospital Size	
>200 Beds	5
200-500 Beds	17
7500 Beds	4
Clinical Area	
Medical	13
Surgical	9
Obstetrics	1
Pediatrics	3
Psychiatry	2
Extended Care	3
Other	5

TABLE 3

PLANS FOR EMPLOYMENT AND CLINICAL AREA PREFERRED:
GROUP II

Employment Plans	Group II Graduates n
Arranged	31
Not arranged	5
<u>Clinical Area Preferred</u>	
Medical	17
Surgical	8
Obstetrics	2
Pediatrics	1
Psychiatry	4
Not specified	4

also indicated the graduates' satisfaction with the program designed to prepare them for nursing duties.

The questionnaire was divided into three sections (see Figure 1).

PART I		DEMOGRAPHY
PART II		
	1	CURRICULUM OBJECTIVES
	1A	GROWTH AND CONTINUED LEARNING
	2	CURRICULUM AREAS
	3	OPEN-ENDED QUESTIONS
PART III		NURSING PRACTICE

Figure 1. Schematic representation of the questionnaire

Part I sought demographic information about the graduates in relation to age, sex, marital status and employment setting. The questionnaire for the Group I sample included questions relevant to their present status of nursing employment, the positions held since graduation, the clinical area in which they were working, and their employing agency. Since most of the Group II sample were not working at the time of the survey, the questionnaire omitted those questions relating to status of nursing employment and substituted instead questions relating to arrangements for employment.

Part II of the questionnaire was divided into three sections, section 1, 1A, 2 and 3 (see Figure 1). Section 1 sought to obtain data related to the content of the nursing program. The curriculum objectives of the program were used as a basis for

determining to what extent the program was perceived to have prepared the graduate to provide nursing care. The curriculum objectives outlined in the BCIT Curriculum Report (1977) are:

1. Apply the nursing process to assess, plan, implement, evaluate and modify nursing care.
2. Perform nursing skills related to the maintenance, promotion and restoration of health.
3. Provide personalized nursing care in order to assist individuals with their health problems which result from an interference with their basic needs.
4. Assume professional responsibility and accountability for assigned nursing care.
5. Communicate effectively as a member of the health care team.
6. Uses community health care agencies in assessing, planning, implementing and evaluating nursing care.
7. Function as a beginning staff nurse.
8. Sets priorities, organizes workloads for the assessing, planning, implementing, evaluating, and modification of assigned nursing care.
9. Demonstrate responsible and accountable behaviours to the patient, the nursing profession and the employing agency.

Section 1A sought to determine to what extent the program promoted personal growth and an interest in continued learning. The statement of beliefs of the nursing program outlined in the BCIT Curriculum Report (1977) were utilized. These are:

1. To encourage student participation in assessing, planning, implementing and evaluating the curriculum.
2. To foster freedom of enquiry for students.
3. To consider individual students' needs and concerns.
4. To stimulate self-direction and independent learning by students.

Part II (1 and 1A) employed a five point scale in which the graduates were asked to rate their experiences from 1 (very limited) to 5 (very extensive).

Section 2 of Part II asked the graduates to assess curriculum areas taught in their program. These curriculum areas included:

YEAR I

A. Nursing I

1. Nursing Theory I
   a. Pharmacology
   b. Communication Skills
   c. Basic Human Needs
2. Anatomy and Physiology
3. Human Development
4. Microbiology
5. Physiology
6. Medical Genetics
7. Human Behaviour I
8. Nursing Laboratories
9. Clinical Experience
   a. Community
   b. Hospital

B. Nursing II

1. Nursing Theory II
2. Pathophysiology
3. Human Behaviour II
4. Immunology and Hypersensitivity
5. Physical Fitness
6. Nursing Laboratories
7. Clinical Experience
   a. Pediatrics
   b. Medical - Surgical

YEAR II

C. Nursing III

1. Child Bearing Family
2. Mental Health Nursing
3. Ambulatory Care
4. Medical - Surgical Nursing
5. English
6. Nursing Laboratories
7. Clinical Experience
   a. Childbearing Family
   b. Mental Health Nursing
   c. Ambulatory Care
   d. Medical - Surgical Nursing

D. Nursing IV

1. Advanced Nursing
2. Clinical Experience

The respondents were asked to assess themselves in respect to the following:

1. knowledge of content
2. competence in the area of nursing
3. personal satisfaction in the area of nursing
4. importance of thorough familiarity with the area
5. need for greater emphasis in the program

Once again a five point scale was utilized in which the graduates were asked to assess the extent of their preparation from 1 (very limited) to 5 (very extensive).

Section 3 of Part II contained open-ended questions related to:

1. areas in which the graduates felt inadequately prepared
2. courses and experiences which the graduates felt could be excluded from the program
3. courses and experiences which the graduates felt could be added to the program
4. courses that the graduates felt were the most beneficial in the program

Part III of the questionnaire required the graduates to complete a self-evaluation of their performance of nursing functions. Specific nursing skills were grouped under the nine curriculum objectives discussed on page 51 of this paper. A four point scale was employed in which the graduates were asked to

assess the amount of guidance required from 1 (no guidance) to 4 (more than average guidance).

The questionnaire was initially field-tested by five recent graduates for possible ambiguity and degree of comprehension. These graduates discussed the questionnaire in relation to possible omissions, poorly worded items or other changes which might be appropriate. The questionnaire was then modified in light of their suggestions.

Data Collection

The questionnaire was mailed to both groups at the beginning of March 1979. An introductory letter was enclosed with the questionnaire explaining the purpose of the study and seeking the participation of the graduate (see Appendix A). A stamped, return addressed envelope was also enclosed. The letter included written instructions asking that all questions be completed and that the questionnaire be returned by April 1, 1979.

It was emphasized that all responses would be treated confidentially. No names appeared on the questionnaire. To provide a method for checking the return of questionnaires, an identification number was placed on each self-addressed envelope. As each questionnaire arrived it was checked on the master sheet containing the names and addresses of the participants. Telephone follow-ups were made for every missing questionnaire.

Exclusions from the Study

Three members in the Group I sample were unable to be contacted, as they left no forwarding address. One member was

travelling in Europe at the time of the study and was therefore excluded. One envelope was received with no contents enclosed. A note from the post office stated that the contents had been lost. One respondent was late in returning the questionnaire and was excluded from the statistical data. However, the responses from this questionnaire were included in the discussion of question three. The thirty-seven usable returns from the Group I sample represent a 66% return.

In the Group II sample, one member was on an individualized program in which the theoretical component was identical with the rest of the class. However, because the clinical component differed, she was excluded from the study. Two respondents returned the questionnaire unanswered. Of these two, one respondent included a note of explanation and expressed appreciation for being included in the study. Four returns were late and were excluded from the statistical data. However, the responses from these questionnaires were included in the discussion of question three (see Appendix A). The forty usable returns from the Group II sample represent a 68% return.

Data Analysis

The data from the questionnaires were subjected to statistical analysis using the Statistical Package for the Social Sciences. The t - statistic was used to assess the data when comparing Group I and Group II. Mean ratings were calculated for each group for most of the questionnaire items. The level of significance at which the null hypotheses were rejected was .05.

In addition to the statistical treatment of the data, the data were also examined from another perspective. In the analysis of the students' ratings on each of the items on the questionnaire a rating of 3.0 was taken to mean adequate in terms of the students' perceptions of their training. A rating of less than 3.0 was considered to be less than adequate; a rating greater than 3.0 was considered to mean better than adequate. Data in the tables, therefore, were treated to a statistical analysis as well as an analysis of each groups' perceptions of the quality of their preparation.

CHAPTER IV

FINDINGS, CONCLUSIONS AND IMPLICATIONS

It was the purpose of this study to determine the perceived learning needs of two recent graduate groups from the BCIT general nursing program. Two hypotheses concerning the two recent graduating classes from the BCIT general nursing program were investigated. This chapter will present the findings regarding these hypotheses. Conclusions and implications relating to the purpose of the study will then be discussed.

Findings

Hypothesis 1: There will be no significant differences between the perceived learning needs of the graduating student (March 1979 class) and the neophyte graduate (July 1978 class) with three to six months work experience.

As discussed in Chapter III, a questionnaire was mailed to two recent graduating classes from the BCIT general nursing program. Part I of the questionnaire relating to demography has been presented in Tables 1, 2, and 3 in Chapter III (see pages 47, 48, 49). Data from Parts II and III of the questionnaire are presented in this chapter.

Part II of the questionnaire sought information about the graduates' perceptions of the adequacy of their nursing program

in relation to the following components: a) the extent to which the program's curriculum objectives had been attained, b) the extent to which the program's beliefs had promoted personal growth and an interest in continued learning, c) the extent to which the graduates felt knowledgeable in curriculum areas, d) the extent to which the graduates felt competent in curriculum areas, 3) the extent to which the graduates felt personal satisfaction in the curriculum areas, f) the extent to which the graduates felt a need for thorough familiarity in the curriculum areas, and g) the extent to which the graduates felt a need for greater emphasis in the curriculum areas. The curriculum objectives, the program beliefs and the five variables for each of the thirty-two curriculum areas were examined in separate hypotheses which were subsets of the general hypothesis stated above.

Hypothesis 1A: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of the extent to which the program's curriculum objectives had been attained.

Question 1 asked the graduate to respond to how well they thought their nursing program had prepared them in relation to the attainment of the program's curriculum objectives. The graduates were asked to rate to what extent they felt the program had achieved its objectives on a five point scale ranging from 1 (very limited) to 5 (very extensive).

Table 4 contains a summary of the groups' perceptions of the extent of achievement of curriculum objectives. Mean scores of

TABLE 4

PERCEPTIONS OF PREPARATION IN RELATION TO THE ATTAINMENT OF PROGRAMS CURRICULUM OBJECTIVES GROUP I AND II

Curriculum Objectives	Group I $\bar{X}$	S.D.	Group II $\bar{X}$	S.D.	t	p
Apply Nursing Process	3.89	.67	4.06	.64	-1.06	.29
Perform Nursing Skills	3.44	.70	3.36	.72	.50	.62
Provide Personalized Nursing Care	4.08	.73	3.92	.60	1.05	.29
Assume Professional Responsibility	3.92	.94	3.81	.86	.53	.60
Communicate Effectively	3.75	1.11	3.47	.81	1.22	.23
Use Community Health Care Agencies	3.17	1	2.78	.93	1.77	.09
Function as a Beginning Staff Nurse	3.25	.97	3.07	.83	.92	.36
Sets Priorities	3.72	.74	3.69	.79	.15	.88
Demonstrates Responsible Behaviour	4.11	.75	3.83	.74	1.59	.12

Note: Group I: July Graduates n = 36
Group II: March Graduates n = 36

both groups together with the t-ratios for the differences in means are seen. The principal test used to determine the significance between the mean scores was the t-test for independent groups. Differences were accepted as significant if the probability that they arose from chance was less than .05.

As seen in Table 4, the mean scores for Group I (July class) were slightly higher than the scores for Group II (March class) for eight of the nine curriculum objectives. The eight curriculum objectives which Group I felt had been more successfully attained for them were a) to perform nursing skills, b) to provide personalized nursing care, c) to assume professional responsibility, d) to communicate effectively, 3) to use community health care agencies, f) to function as a beginning staff nurse, g) to set priorities, and h) to demonstrate responsible behaviour.

The objective which the Group I graduates felt had been less adequately achieved for them was in the application of the nursing process. While there are slight differences in mean scores, none was significant at the .05 level. As a consequence, hypothesis 1A was not rejected.

The data in the table also show that all of the scores for the Group I respondents fell into a range of ≥ 3.0 which suggests that Group I graduates saw their preparation, in areas of the program's curriculum objectives, as at least adequate. Additionally, two areas, Provide Personalized Nursing Care and Demonstrate Responsible Behaviour, had scores of over 4.0 suggesting that their preparation in these areas was considered to be more thorough. The data for Group II also showed most scores in the

range of ≥ 3.0, indicating adequate preparation. However, with the score of 2.78 in the curriculum objective, Use of Community Health Care Agencies, the extent of preparation was seen as slightly less than adequate, and with the score of 4.06 in the curriculum objective, Apply Nursing Process, the extent of preparation was perceived as more extensive.

Hypothesis 1B: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of the extent to which the program's beliefs promoted personal growth and an interest in continued learning.

Question 1A asked the graduates to rate the extent to which they perceived their nursing program had promoted personal growth and an interest in continued learning in relation to the beliefs of the program as outlined in the 1977 BCIT Curriculum Report (see Appendix B). Again a five point scale ranging from 1 (very limited) to 5 (very extensive) was employed.

Table 5 contains a summary of the groups' perceptions of the extent to which the nursing program had been congruent with its' stated beliefs. The data in the table showed the mean scores for Group I (July class) to be slightly higher in all areas than for Group II (March class). In the areas of Encouragement of Student Participation and the Consideration of Individual Needs, differences in favor of Group I were significant at or beyond the .05 level of confidence. In the area of Fostering Freedom of Inquiry, the difference in favor of Group I was significant beyond the .01 level of confidence. The data in Table 5, therefore, allows for the rejection of Hypothesis 1B for these three areas in

TABLE 5

PERCEPTIONS OF EXTENT TO WHICH PROGRAM BELIEFS PROMOTED PERSONAL GROWTH AND INTEREST IN CONTINUED LEARNING GROUPS I AND II

Beliefs	Group I		Group II			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	t	p
Encourage student participation	3.31	.86	2.78	1.22	2.12	.04*
Foster freedom of enquiry	3.58	1.08	2.81	1.01	3.16	.002**
Consider individual needs	2.83	1.16	2.31	.92	2.14	.04*
Stimulate self-direction	3.57	1.11	3.06	1.09	1.93	.06

Note: Group I: July Graduates n = 36
Group II: March Graduates n = 36

*$p \geq .05$

**$p \geq .01$

favor of Hypothesis 1B[1]: There will be a significant difference in the means between Group I and Group II respondents in their perception of the extent to which the program's beliefs promoted personal growth and an interest in continued learning.

In the fourth area of Stimulating Self-Direction shown on Table 5, there were no significant differences between the mean scores of the two groups. Therefore, Hypothesis 1B was not rejected for this area.

An examination of the data in Table 5 showed that the Group I respondents considered the extent of their preparation to be at least adequate, by their scores in the range of 3.0 in three of the four areas. In the area of Consideration of Individual Needs, the score 2.83 suggested less satisfaction with the preparation received. Group II respondents considered the extent of their preparation to be less than adequate as seen by their scores in the range of 2.31-2.81 in three of the four areas. Only one score 3.06 in the area of Stimulation of Self-Direction, fell in the adequate range (3.0-3.99). It was also noted that while there was a significant difference between the groups for the area of Consideration of Individual Needs, both groups rate the extent of their preparation as less than adequate in this area.

<u>Hypothesis 1C: There will be no significant differences in the means between Group I and Group II respondents on their ratings of perceived knowledge in curriculum areas.</u>

Question two sought information related to the thirty-two curriculum areas of the nursing program. Graduates were asked to assess the criteria of a) knowledge, b) competence, c) personal

satisfaction, d) importance, and e) the need for greater emphasis. Once again a five point scale, ranging from 1 (very limited) to 5 (very extensive), was employed.

Table 6 contains a summary of the groups' perceptions of the extent of their knowledge in the thirty-two curriculum areas.

From the table it can be seen that there is only one statistically significant difference at or beyond the .05 level in favor of Group II in the curriculum area of Pediatric Clinical Experience, indicating that they felt more knowledgeable in this area than did Group I. All other scores showed no significant differences. As a consequence, the null hypothesis for the groups' overall perceptions of knowledge in curriculum areas was unable to be rejected.

An examination of the data revealed that neither group perceived the extent of their knowledge to be very extensive. The majority of the scores fell between the 3-4 category suggesting that the graduates saw themselves as having at least satisfactory knowledge in most curriculum areas.

It is important to note that the ratings by both groups in the curriculum areas of Pharmacology, Microbiology and Immunology were below 3.0 indicating that limited knowledge was perceived in these areas. Group I perceived more limited knowledge than Group II in the curriculum areas of Pediatrics and Medical Genetics as indicated by their scores of 2.86 and 2.94 respectively. Group II perceived more limited knowledge than Group I in the curriculum area of Community Experience as indicated by their score of 2.92.

TABLE 6

PERCEPTIONS OF KNOWLEDGE IN CURRICULUM AREAS
GROUPS I AND II

Curriculum Areas	Group I $\overline{X}$	Group I S.D.	Group II $\overline{X}$	Group II S.D.	t	p
Pharmacology	2.97	.84	2.97	.70	0	1.00
Communication Skills	4.14	.83	4.19	.79	- .29	.77
Basic Human Needs	4.28	.94	4.19	.75	.41	.69
Anatomy & Physiology	3.83	.66	3.89	.79	- .33	.75
Human Development	3.61	.80	3.44	.77	.90	.37
Microbiology	2.67	1.04	2.78	.95	- .47	.64
Physiology	3.92	.65	4.00	.72	- .52	.60
Medical Genetics	2.94	.79	3.25	.91	-1.52	.13
Human Behaviour I	3.64	.83	3.42	1.03	1.01	.32
Nursing Laboratories I	3.97	.74	5.72	.74	1.44	.15
Community Experience	3.08	1.03	2.92	.94	.72	.47
Hospital Experience	3.78	.80	3.69	.79	.47	.64
Nursing Theory II	3.56	.94	3.72	.70	- .85	.40
Pathophysiology	3.64	1.13	3.78	.90	- .58	.57
Human Behaviour II	3.47	1.13	3.25	.91	.92	.36
Immunology	2.75	1.03	2.97	.94	- .96	.34
Physical Fitness	3.69	1.31	3.69	.79	0	1.00
Nursing Laboratories II	3.83	1.06	3.86	.64	- .14	.89
Pediatrics Clinical	2.86	.83	3.28	.88	-2.86	.04*
Medical-Surgical Clinical, Year I	3.89	.67	3.55	.84	1.86	.07
Childbearing Family Theory	3.81	.79	4.05	.63	-1.49	.14
Mental Health Theory	3.67	1.39	3.64	.83	.10	.92
Ambulatory Care Theory	3.03	1.16	3.33	.75	-1.33	.19
Medical-Surgical Theory	3.81	.95	3.81	.62	0	1.00
English	3.55	1.55	3.36	1.18	.60	.55
Nursing Laboratories III	3.86	.90	3.67	.71	1.01	.31
Mental Health Clinical	3.53	1.40	3.44	.97	.29	.77
Childbearing Family Clinical	3.72	.85	3.86	.68	- .77	.45
Ambulatory Care Clinical	3.14	1.20	3.28	.78	- .58	.56
Medical-Surgical Clinical, Year II	3.83	.94	3.83	.74	0	1.00
Adv. Nursing Theory	3.83	.78	3.67	.72	.95	.35
Adv. Nursing Clinical	3.92	.84	3.83	.56	.49	.62

Note: Group I: July Class n=36; Group II: March Class n=36

* $p < .05$

While there is insufficient data to reject the null hypothesis, it may be of some consequence to note that few of the scores of Group I and Group II appear at the 4.0 level or above, suggesting few feelings of more extensive preparation in the knowledge variable in the thirty-two curriculum areas.

Hypothesis 1D: There will be no significant differences in the means between Group I and Group II respondents on ratings of perceived competence in curriculum areas.

Table 7 contains a summary of the groups' perceptions of their competence in the thirty-two curriculum areas.

The data on Table 7 revealed that there was only one statistically significant difference at the .01 level in favor of Group I in the curriculum area of Advanced Nursing Theory, indicating more feelings of competence than Group II. No other score approaches significance for the rest of the thirty-one curriculum areas listed. Therefore, the null hypothesis for the groups' overall perceptions of competence in the curriculum areas was unable to be rejected.

An examination of the data found in Table 7 showed that both groups indicated feelings of competence in each of the thirty-two curriculum areas. It can be seen that the majority of the scores fell within the 3.0-4.39 range indicating that the respondents from both groups felt that their competence in these curriculum areas was at least adequate. Group I (July class) scores fell in the 4.0-4.39 range in five curriculum areas, Communication Skills, Basic Human Needs, Nursing Laboratories I, Advanced Nursing Theory and Clinical Experience, which showed feelings of more extensive

TABLE 7

PERCEPTION OF COMPETENCE IN CURRICULUM AREAS
GROUPS I AND II

Curriculum Areas	Group I $\overline{X}$	Group I S.D.	Group II $\overline{X}$	Group II S.D.	*t*	*p*
Pharmacology	3.44	.77	3.19	.82	1.33	.19
Communication Skills	4.31	.71	4.08	.69	1.35	.18
Basic Human Needs	4.39	.69	4.17	.78	1.29	.20
Anatomy & Physiology	3.72	.78	3.78	.76	- .31	.76
Human Development	3.61	.84	3.42	.77	1.30	.31
Microbiology	2.69	1.01	2.72	.88	- .12	.90
Physiology	3.83	.70	3.97	.70	- .85	.40
Medical Genetics	2.72	.94	3.11	.95	-1.74	.09
Human Behaviour I	3.67	.83	3.33	.86	1.67	.10
Nursing Laboratories I	4.00	.75	3.81	.71	1.13	.26
Community Experience	3.22	1.07	2.94	.84	1.19	.24
Hospital Experience	3.86	.87	3.72	.74	.73	.47
Nursing Theory II	3.61	.96	3.78	.59	- .88	.38
Pathophysiology	3.58	.94	3.86	.76	-1.38	.17
Human Behaviour II	3.53	1.00	3.33	.89	.87	.39
Immunology	2.69	1.06	2.81	.82	- .50	.62
Physical Fitness	3.55	1.34	3.53	.85	.11	.92
Nursing Laboratories II	3.75	1.08	3.75	.73	0	1.00
Pediatrics Clinical	3.06	.83	3.28	.91	-1.08	.28
Medical-Surgical Clinical, Year I	3.89	.67	3.55	.84	1.86	.07
Childbearing Family Theory	3.75	.87	3.86	.64	- .62	.54
Mental Health Theory	3.56	1.46	3.72	.94	- .57	.57
Ambulatory Care Theory	3.14	1.27	3.33	.86	- .76	.45
Medical-Surgical Theory	3.83	.97	3.75	.65	.43	.68
English	3.55	1.65	3.28	1.11	.84	.40
Nursing Laboratories III	3.81	.95	3.67	.68	.71	.48
Mental Health Clinical	3.31	1.55	3.55	.97	- .82	.41
Childbearing Family Clinical	3.67	.95	3.83	.74	- .83	.41
Ambulatory Care Clinical	3.06	1.22	3.39	.80	-1.37	.17
Medical-Surgical Clinical, Year II	3.83	.97	3.78	.64	.29	.77
Adv. Nursing Theory	4.00	.72	3.58	.69	2.51	.01**
Adv. Nursing Clinical	4.03	.77	3.78	.64	1.50	.14

Note: Group I: July Class n=36; Group II: March Class n=36

$^{**}p \leq .01$

competence. Group II (March class) scores showed perceptions of more extensive competence in only two areas, Communication Skills and Basic Human Needs.

However, in two curriculum areas, Microbiology and Immunology, both groups indicated they felt least competent, with scores ranging from 2.69-2.81. In the curriculum area of Community Experience, Group II suggested feelings of less than adequate competence by their rating below the 3.0 level (2.94). These data were consistent with findings for these areas on Table 6.

Group I scores were slightly higher in the majority of the curriculum areas. However, the data revealed that the differences were not significant. While the null hypothesis may be rejected for one curriculum area, Advanced Nursing Theory, there was not sufficient data to reject the general hypothesis.

<u>Hypothesis 1E: There will be no significant differences in the means between Group I and Group II respondents on ratings of perceived personal satisfaction in the curriculum areas</u>.

Table 8 contains a summary of the groups' perceptions of their personal satisfaction in each of the thirty-two curriculum areas.

The data presented in Table 8 showed that there were six areas in which statistically significant differences occurred. Statistically significant differences at the .01 level in favor of Group I were seen in the curriculum areas of Communication Skills and Community Experience. Statistically significant differences at or beyond the .05 level in favor of Group I were seen in the

TABLE 8

PERCEPTIONS OF PERSONAL SATISFACTION IN CURRICULUM AREAS GROUPS I AND II

Curriculum Areas	Group I $\overline{X}$	Group I S.D.	Group II $\overline{X}$	Group II S.D.	t	p
Pharmacology	2.94	.96	2.89	.89	.26	.80
Communication Skills	4.50	.74	4.08	.69	2.47	.01**
Basic Human Needs	4.22	.80	3.83	.81	2.05	.04*
Anatomy & Physiology	3.61	.99	3.83	.85	-1.02	.31
Human Development	3.44	.84	3.53	.94	- .40	.69
Microbiology	2.81	1.06	2.47	1.00	1.37	.17
Physiology	3.89	.85	3.86	.80	.14	.89
Medical Genetics	2.81	1.06	3.08	1.05	-1.11	.27
Human Behaviour I	3.69	.86	3.44	1.15	1.04	.30
Nursing Laboratories I	3.78	.95	3.61	.93	.75	.46
Community Experience	3.50	1.23	2.78	1.10	2.63	.01**
Hospital Experience	3.83	.88	3.75	1.03	.37	.71
Nursing Theory II	3.31	.86	3.53	.91	-1.07	.29
Pathophysiology	3.69	1.10	4.03	.85	-1.52	.13
Human Behaviour II	3.53	1.15	3.39	1.06	.53	.60
Immunology	2.69	1.24	2.75	1.05	- .21	.84
Physical Fitness	3.25	1.42	3.83	.91	-2.07	.04*
Nursing Laboratories II	3.61	1.13	3.75	.87	- .58	.56
Pediatrics Clinical	3.28	1.21	3.39	1.13	- .40	.69
Medical-Surgical Clinical, Year I	4.00	.75	3.53	1.23	1.67	.05*
Childbearing Family Theory	3.83	.94	4.22	.68	-2.01	.05*
Mental Health Theory	3.25	1.70	3.33	1.17	- .24	.81
Ambulatory Care Theory	2.75	1.54	2.92	.91	- .56	.58
Medical-Surgical Theory	3.94	1.12	3.94	.95	0	1.00
English	2.83	1.73	2.58	1.32	.69	.49
Nursing Laboratories III	3.69	1.12	3.58	.87	.47	.64
Mental Health Clinical	3.36	1.64	3.33	1.39	.08	.94
Childbearing Family Clinical	3.94	.95	4.25	.73	-1.52	.13
Ambulatory Care Clinical	2.64	1.38	3.06	1.00	-1.46	.15
Medical-Surgical Clinical, Year II	3.78	1.05	3.72	1.06	.22	.82
Adv. Nursing Theory	3.47	.94	3.50	.88	- .13	.90
Adv. Nursing Clinical	3.89	.79	4.11	.75	-1.23	.22

Note: Group I: July Class n=36; Group II: March Class n=36

$^*p \leq .05$; $^{**}p \leq .01$

curriculum areas of Basic Human Needs, and Medical-Surgical Clinical Experience Year I. In these areas the mean scores of Group I indicated greater satisfaction than Group II (March class).

The data from Table 8 also showed that statistically significant differences at or beyond the .05 level occurred in favor of Group II in the curriculum areas of Physical Fitness and Childbearing Family Theory. Group II mean scores indicated perceptions of greater satisfaction in these areas than Group I (July class).

While the data on the table showed that the null hypothesis may be rejected in six of the thirty-two areas, there was insufficient data to reject the general hypothesis with respect to overall feelings of satisfaction with the curriculum areas of the total program. Both groups indicated adequate feelings of personal satisfaction in twenty-four of the curriculum areas with scores ranging from 3.25-4.50. Moreover, since the significance favored Group I in four of the areas and Group II in two of the areas, a clear trend in favor of one group over the other could not be found.

An examination of the data revealed that both groups expressed less than adequate personal satisfaction in the curriculum areas of Pharmacology, Microbiology, English, Immunology and Ambulatory Care Theory, with scores falling below 3.0. Group I, in addition, expressed less satisfaction with Medical Genetics and Ambulatory Care Clinical Experience, while Group II indicated less satisfaction with Community Experience. Very few scores

fell on or above 4.0. Both groups indicated greatest satisfaction in the curriculum area of Communication Skills with scores above 4.0.

Hypothesis 1F: There will be no significant differences in the means between Group I and Group II respondents on ratings of perceived importance of being thoroughly familiar with the curriculum areas.

Table 9 contains a summary of the groups' perceptions of the importance of being thoroughly familiar with each of the thirty-two curriculum areas.

From the data presented in Table 9 it can be seen that there were statistically significant differences in favor of Group I in six curriculum areas. Statistically significant differences at or beyond the .05 level were seen in the curriculum areas of Communication Skills, Anatomy and Physiology, Microbiology, Physiology, and Advanced Nursing Clinical Experience. Statistically significant differences at the .01 level were seen in the curriculum area of Advanced Nursing Theory. These responses suggested that Group I felt that the need to be thoroughly familiar with these curriculum areas was more important than did Group II (March class).

The data on Table 9 showed that Group I scores were slightly higher in the majority of the areas. The data showed that in thirty of the areas the mean scores ranged between 3.03-4.83 indicating that both groups felt that it was important to be thoroughly familiar in these curriculum areas. English was the only area in which both groups indicated that familiarity was

TABLE 9

PERCEPTIONS OF IMPORTANCE OF THOROUGH FAMILIARITY IN CURRICULUM AREAS GROUPS I AND II

Curriculum Areas	Group I $\bar{X}$	Group I S.D.	Group II $\bar{X}$	Group II S.D.	t	p
Pharmacology	4.64	.64	4.67	.59	- .19	.85
Communication Skills	4.69	.58	4.37	.72	2.16	.03*
Basic Human Needs	4.69	.58	4.47	.65	1.53	.13
Anatomy & Physiology	4.72	.51	4.42	.73	2.05	.04*
Human Development	4.11	.67	3.78	.93	1.75	.09
Microbiology	3.50	.94	2.97	1.00	2.31	.02*
Physiology	4.78	.49	4.44	.70	2.36	.02*
Medical Genetics	3.14	.93	3.06	.86	.39	.69
Human Behaviour I	3.86	.90	3.69	1.19	.67	.42
Nursing Laboratories I	4.58	.65	4.64	.59	- .38	.71
Community Experience	3.64	.80	3.33	.86	1.56	.12
Hospital Experience	4.75	.50	4.75	.44	0	1.00
Nursing Theory II	4.31	1.06	4.44	.65	- .67	.51
Pathophysiology	4.58	.94	4.36	.72	1.13	.26
Human Behaviour II	3.61	1.05	3.44	1.15	.64	.52
Immunology	3.47	1.08	3.25	.97	.92	.36
Physical Fitness	3.31	1.35	3.39	1.10	- .29	.77
Nursing Laboratories II	4.47	1.00	4.55	.65	- .42	.68
Pediatrics Clinical	4.08	.81	4.14	.80	- .29	.77
Medical-Surgical Clinical, Year I	4.72	.45	3.53	1.23	1.96	.10
Childbearing Family Theory	4.33	.72	4.19	.92	.71	.48
Mental Health Theory	3.86	1.48	3.64	1.10	.12	.47
Ambulatory Care Theory	3.03	1.50	3.19	1.09	- .54	.59
Medical-Surgical Theory	4.55	.94	4.69	.53	- .77	.44
English	2.67	1.60	2.61	1.34	.16	.87
Nursing Laboratories III	4.36	1.02	4.39	.93	- .12	.90
Mental Health Clinical	3.86	1.42	3.53	1.23	1.07	.29
Childbearing Family Clinical	4.31	.75	4.06	.86	1.32	.19
Ambulatory Care Clinical	3.08	1.44	3.19	1.14	- .36	.72
Medical-Surgical Clinical II	4.61	.93	4.64	.49	- .16	.87
Adv. Nursing Theory	4.58	.69	3.94	1.12	2.91	.01**
Adv. Nursing Clinical	4.83	.51	4.55	.65	2.02	.05*

Note: Group I: July Class n=36; Group II: March Class n=36

*$p \leq .05$; **$p \leq .01$

considered less important. Group II indicated that they did not consider being thoroughly familiar in Microbiology was as important as did Group I (July class).

While the null hypothesis may be rejected for the six curriculum areas previously mentioned, there was not sufficient data to reject the general hypothesis.

Hypothesis 1G: There will be no significant differences in the means between Group I and Group II respondents on ratings of perceived need for greater emphasis in the curriculum areas.

Table 10 contains a summary of the groups' perceptions of the need for greater emphasis in each of the thirty-two curriculum areas.

The data presented in Table 10 showed that there were four curriculum areas in which statistically significant differences occurred favoring Group I. Statistically significant differences occurred at the .01 level in the curriculum areas of Childbearing Family in both Theory and Clinical Experience. Statistically significant differences were seen at or beyond the .05 level in the curriculum areas of Community Experience and Advanced Nursing Theory. The differences indicated that Group I (July class) felt that greater emphasis was necessary in these areas.

While the null hypothesis may be rejected for these four curriculum areas, there was not sufficient data to reject the general hypothesis. The data on Table 10 showed that Group I mean scores were higher in over half the areas, indicating a greater need for emphasis in these areas. However, the data revealed that scores for both groups ranged from 1.67-4.0 with the majority

TABLE 10

PERCEPTIONS OF EMPHASIS NEEDED IN CURRICULUM AREAS
GROUPS I AND II

Curriculum Areas	Group I $\bar{X}$	Group I S.D.	Group II $\bar{X}$	Group II S.D.	t	p
Pharmacology	3.75	1.36	3.78	1.20	- .09	.93
Communication Skills	2.92	1.46	2.86	1.18	.18	.86
Basic Human Needs	2.39	1.33	2.31	.98	.30	.76
Anatomy & Physiology	3.11	1.35	2.72	1.26	1.27	.21
Human Development	2.72	1.09	2.64	.99	.34	.73
Microbiology	2.94	1.12	2.56	1.23	1.40	.17
Physiology	2.94	1.35	2.72	1.14	1.14	.45
Medical Genetics	2.25	.90	2.42	.08	- .71	.48
Human Behaviour I	2.58	1.03	2.39	1.02	.81	.42
Nursing Laboratories I	3.33	1.53	3.53	1.28	- .59	.56
Community Experience	3.14	.96	2.55	1.11	2.39	.02*
Hospital Experience	3.56	1.42	3.72	1.30	- .52	.61
Nursing Theory II	2.86	1.35	2.78	1.17	.28	.78
Pathophysiology	3.28	1.39	2.92	1.20	1.18	.24
Human Behaviour II	2.55	1.03	2.14	.93	1.80	.07
Immunology	2.64	1.27	2.58	1.15	.19	.85
Physical Fitness	2.61	1.48	2.86	1.33	- .75	.45
Nursing Laboratories II	3.19	1.47	3.33	1.22	- .44	.66
Pediatrics Clinical	4.00	1.04	3.64	1.02	1.49	.14
Medical-Surgical Clinical, Year II	3.36	1.27	3.22	1.27	.46	.64
Childbearing Family Theory	3.00	1.37	2.22	.93	2.81	.01**
Mental Health Theory	3.03	1.63	2.69	1.31	.96	.34
Ambulatory Care Theory	2.47	1.40	2.36	1.15	.37	.71
Medical-Surgical Theory	3.25	1.48	3.31	1.31	- .17	.87
English	1.67	1.12	1.67	.99	0	1.00
Nursing Laboratories III	3.22	1.48	3.17	1.23	.17	.86
Mental Health Clinical	3.00	1.66	2.44	1.30	1.58	.12
Childbearing Family Clinical	3.25	1.30	2.50	1.06	2.69	.01**
Ambulatory Care Clinical	2.42	1.34	2.44	1.05	- .10	.92
Medical-Surgical Clinical, Year II	3.33	1.49	3.33	1.33	0	1.00
Adv. Nursing Theory	3.28	1.41	2.61	1.46	1.96	.05*
Adv. Nursing Clinical	3.69	1.39	3.64	1.22	.18	.86

Note: Group I: July Class n=36; Group II: March Class n=36

*$p \leq .05$; **$p \leq .01$

of scores falling in the 3.0 range, and below, indicating the need for greater emphasis in these curriculum areas was not necessary. In the thirty-two curriculum areas, only one score reached 4.0 (Group I). Both groups scored between 3.17-3.78 in nine curriculum areas. In a further eight areas, Group I's scores fell in the range of 3.0-3.28, while Group II scores for the same areas were between 2.22-2.92. Another thirteen curriculum areas were rated in the 2.14-2.94 range for both groups. One area, English, was rated below 2.0 by both groups, indicating very little need for greater emphasis in this area. This is consistent with the data found on Table 9.

The data presented are related to the hypothesis that there will be no significant differences between the perceived learning needs of the graduating student (March 1979 class) and the neophyte graduate (July 1978 class) with three to six months work experience. These data were examined with respect to a series of hypotheses, each dealing with a specific criterion of student perceptions of professional training in the nursing program. While some significant differences in the two groups' perceptions did appear, the data were insufficient to reject hypothesis 1, since there does not appear to be clear, consistent and significant differences between the two groups.

<u>Hypothesis 2: There will be no significant differences between the two groups in relation to their perceptions of the amount of guidance needed in nursing practice.</u>

In Part III of the questionnaire (see Appendix A) the graduates were asked to indicate their estimation of their ability

to perform nursing functions. The graduates were asked to rate their perceptions of their performance on a four point scale ranging from 1 (no guidance) to 4 (more than average guidance).

The nine curriculum objectives used to assess the graduates' estimation of their ability to perform nursing functions were:

a) application of the nursing process

b) performance of nursing skills

c) provision of personalized nursing care

d) assumption of professional responsibilities

e) effective communication

f) use of community health care agencies

g) function as a beginning staff nurse

h) setting of priorities

i) demonstration of responsible and accountable behaviour

Each of the curriculum objectives were examined in a separate hypothesis, which was a sub-set to the general hypothesis stated above.

Hypothesis 2A: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed in the application of the nursing process.

Table 11 contains a summary of the groups' responses to the amount of guidance perceived to be needed in the application of the nursing process.

The data in the table showed that Group II mean scores were slightly higher in eight of the nine areas. However, the *t*-ratios for the differences were not significant. The scores ranged from

TABLE 11

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: NURSING PROCESS

Nursing Process	Group I $\overline{X}$	Group I S.D.	Group II $\overline{X}$	Group II S.D.	t	p
Assesses needs	1.47	.70	1.67	.79	-1.11	.27
Identifies actual and/ or potential problems	1.61	.73	1.72	.74	- .64	.52
Plans and implements nursing intervention	1.94	.83	1.94	.75	0	1.00
Sets priorities	1.53	.81	1.58	.65	- .32	.75
Evaluates nursing intervention	1.47	.61	1.55	.69	- .54	.59
Reassess needs and problems	1.53	.65	1.55	.73	- .17	.87
Modify care	1.55	.65	1.75	.81	-1.13	.26
Plan future care	1.53	.74	1.86	.80	-1.84	.07
Basis for intervention or implement change	1.47	.70	1.78	.87	-1.65	.10

Note: Group I: July Class n = 36
Group II: March Class n = 36

1.47-1.94 which indicated that both groups felt little guidance was needed in carrying out these nursing functions.

The null hypothesis was not rejected for any of the areas in the application of the nursing process.

Hypothesis 2B: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed in the performance of nursing skills.

Table 12 contains a summary of the groups' responses to the amount of guidance perceived to be needed in the performance of nursing skills.

The data in the table showed that there were statistically significant differences beyond the .05 level in favor of Group II in the nursing skill area of Setting Up and Maintaining Isolation Precautions. This indicated a perceived need for greater guidance in this particular nursing skill area by Group II respondents (March class).

From the data in the table we see that Group II mean scores were slightly higher in most areas. However, in the nursing skills of Administering Oral Drugs and Carrying out Pre- and Post-Operative Care, Group I indicated a need for somewhat more guidance than did Group II. The t-ratios for the difference were not significant, therefore, the data were insufficient to reject the general hypothesis.

The table showed a range of scores between 1.14-2.55 indicating a need for more guidance than revealed by Table 11. However, it should be noted that the score of 2.55 falls into

TABLE 12

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: NURSING SKILLS

Nursing Skills	Group I		Group II			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	*t*	*p*
Prepare and carry out nursing care plan	1.53	.65	1.53	.73	- .34	.73
Administer drugs:						
oral	1.31	.62	1.28	.61	.19	.85
intramuscular	1.33	.63	1.39	.73	- .35	.73
subcutaneous	1.39	.65	1.39	.73	0	1.00
intravenous	2	.86	2.17	.81	- .85	.40
Assist with diagnostic tests	2.08	.73	2.42	.73	-1.93	.06
Determine significance of common diagnostic tests	2.22	.72	2.39	.80	- .93	.35
Perform simple procedures	1.14	.42	1.19	.53	- .49	.62
Perform complex procedures	2.36	.80	2.55	.94	- .95	.35
Operate special equipment	1.75	.84	2.17	1.03	-1.88	.06
Carry out isolation precautions	1.67	.75	2.19	1.04	-2.07	.02*
Pre- and post-operative care	1.81	.79	1.78	.83	.15	.88

Note: Group I: July Class n = 36; Group II: March Class n = 36

*$p \le .05$

response category "little guidance needed".

Hypothesis 2C: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of the amount of guidance needed in providing personalized nursing care.

Table 13 contains a summary of the groups' responses to the amount of guidance perceived to be needed in providing personalized nursing care.

The data in the table showed that Group II mean scores were slightly higher in all of the nursing skill areas listed. However, the *t*-ratios for the differences were not significant. Consequently, the null hypothesis may not be rejected for this category of nursing practice. Examination of the group scores showed scores ranging from 1.08-1.81, indicating a need for little guidance on the part of both groups in carrying out these nursing functions.

Hypothesis 2D: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed in assuming professional responsibilities.

Table 14 contains a summary of the groups' responses to the amount of guidance perceived to be needed in assuming professional responsibilities.

The data in the table showed that the Group II mean scores were slightly higher in four of the areas. However, the *t*-ratios for the differences were not significant. Group I indicated that they felt a need for more guidance in the area of Holding

TABLE 13

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: NURSING CARE

Nursing Care	Group I		Group II		*t*	*p*
	$\overline{X}$	S.D.	$\overline{X}$	S.D.		
Knowledge of patient's health problems	1.58	.77	1.81	.79	-1.21	.23
Direct observation	1.44	.69	1.61	.73	- .99	.32
Information from patient's history, family or other health team members	1.39	.73	1.55	.69	- .99	.32
Plan care according to priority of patient's needs	1.50	.77	1.67	.75	- .92	.36
Provide nursing care in accordance with patient's cultural and religious beliefs	1.61	.77	1.78	.90	- .85	.40
Displays a caring attitude	1.08	.37	1.17	.45	- .86	.39

Note: Group I: July Class n = 36
Group II: March Class n = 36

TABLE 14

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: PROFESSIONAL RESPONSIBILITY

Professional Responsibility	Group I		Group II			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	t	p
Carries out nursing actions within scope of legal practice	1.42	.73	1.58	.69	- .99	.32
Accepts responsibility	1.33	.75	1.33	.59	0	1.00
Acts within policies of hospital or health agency	1.53	.74	1.55	.81	- .15	.88
Holds privileged information confidentially	1.14	.35	1.11	.32	.35	.73
Maintains therapeutic regime	1.39	.55	1.39	.65	0	1.00
Sustains patient's confidence	1.31	.58	1.33	.68	- .19	.85
Recognizes limitations	1.28	.66	1.44	.77	- .98	.33

Note: Group I: July Class n = 36
Group II: March Class n = 36

Privileged Information Confidentially. However, differences were not significant. The data, therefore, did not allow for a rejection of the hypothesis in this area of nursing practice. An examination of the scores showed a range from 1.11-1.58, indicating that both groups felt little guidance was needed in carrying out these nursing functions.

Hypothesis 2E: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed to communicate effectively as a member of the health care team.

Table 15 contains a summary of the groups' responses to the amount of guidance perceived to be needed in communicating effectively.

The data in the table showed that Group II mean scores were slightly higher in most areas. However, the *t*-ratios for differences were not significant. The data, therefore, did not allow for rejection of the hypothesis for this area of nursing practice. An examination of the group scores showed scores ranging from 1.28-1.83 indicating that little guidance was felt needed to carry out these nursing functions.

Hypothesis 2F: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed in the use of community health care agencies in assessing, planning, implementing, and evaluating nursing care.

Table 15 contains a summary of the groups' responses to the amount of guidance perceived to be needed in using community

TABLE 15

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: COMMUNICATES EFFECTIVELY

Communicates Effectively	Group I		Group II			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	t	p
Records data accurately	1.36	.59	1.50	.70	- .90	.37
Communicates effectively	1.28	.51	1.28	.73	- .93	.35
Observes and reports changes in patient's condition	1.33	.59	1.33	.63	0	1.00
Explains procedures	1.55	.73	1.72	.83	- .89	.38
Teaches consistently	1.55	.73	1.83	.85	-1.49	.14
Uses Community Health Care Agencies						
Knowledgeable of community agencies	2.64	.68	2.50	.81	.79	.43
Shares information re community agencies with patient and family	2.19	.89	2.11	1.06	.36	.72
Makes referrals	2.47	.77	2.64	1.02	- .78	.44

Note: Group I: July Class n = 36
Group II: March Class n = 36

health care agencies.

The data in the table showed that Group I mean scores were slightly higher in two of three areas. However, the _t_-ratios for the differences were not significant, therefore, the null hypothesis may not be rejected. The scores in this area of the table were higher than previously noted, ranging from 2.11-2.64 indicating a perceived need for more guidance than was seen in other tables. However, it should be noted that these scores still fall into the "little need for guidance" category.

Hypothesis 2G: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed to function as a beginning staff nurse.

Table 16 contains a summary of the groups' responses to the amount of guidance perceived to be needed to function as a beginning staff nurse.

Data in the table showed statistically significant differences at the .01 level in favor of Group II in the nursing skill areas of Organization of Nursing Assignments on the Night and Twelve Hour Shifts, suggesting that Group II respondents perceived the need for more guidance in these nursing practice areas than did Group I.

The data in the table showed that Group II mean scores were slightly higher in all areas. However, the differences were not significant. The scores ranged from 1.17-2.14 indicating that little guidance was perceived by both groups to be needed to function as a beginning staff nurse.

TABLE 16

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: FUNCTIONS AS A STAFF NURSE

Functions as a Staff Nurse	Group I		Group II			
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	*t*	*p*
Organizes nursing assingments on:						
day shift	1.55	.88	1.55	.72	- .59	.56
evening shift	1.53	.97	1.72	.78	- .94	.35
night shift	1.36	1.10	2.14	1.29	-2.75	.01**
twelve hour shift	1.17	1.28	2.03	1.44	-2.68	.01**
Written and oral reports are clear, concise and accurate	1.42	.73	1.69	.82	-1.51	.13
Interprets and translates Doctor's orders	1.69	.79	1.97	.88	-1.41	.16
Assume team leader responsibilities	1.53	.85	1.86	.90	-1.62	.11
Uses lines of authority and communication appropriately	1.61	.73	1.83	.81	-1.22	.23

Note: Group I: July Class n = 36
Group II: March Class n = 36

**$p < .01$

While the null hypothesis may be rejected for the Organization of Nursing Assignments on the Night and Twelve Hour Shifts there was not sufficient data to reject the general hypothesis.

Hypothesis 2H: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed to set priorities.

Table 17 contains a summary of the groups' responses to the amount of guidance perceived to be needed to set priorities.

The data in the table showed that the Group II mean scores were slightly higher in all areas. However, the *t*-ratios for the differences were not significant. The group scores range from 1.11-1.83 indicating little guidance was felt to be needed in carrying out these nursing functions. The null hypothesis, therefore, was not rejected.

Hypothesis 2I: There will be no significant differences in the means between Group I and Group II respondents in their perceptions of amount of guidance needed in demonstrating responsible and accountable behaviours.

Table 18 contains a summary of the groups' responses to the amount of guidance perceived to be needed to demonstrate responsible and accountable behaviour.

The data in the table indicated that no significant differences occurred. Group II mean scores were slightly higher in half of the areas. Group I indicated by their mean scores that they perceived to need slightly more guidance than Group II in three areas. The scores ranged from 1.06-1.72 suggesting that

TABLE 17

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: SETS PRIORITIES

Sets Priorities	Group I $\overline{X}$	Group I S.D.	Group II $\overline{X}$	Group II S.D.	t	p
Utilizes various members of the health team	1.72	.80	1.83	.77	.30	.77
Cooperative and courteous	1.11	.40	1.14	.35	- .31	.75
Delegates to auxiliary personnel	1.69	.79	1.72	.74	- .15	.88
Provides guidance	1.64	.76	1.78	.83	- .74	.46

Note: Group I: July Class n = 36
Group II: March Class n = 36

TABLE 18

A COMPARISON OF GROUP RESPONSES TO AMOUNT OF GUIDANCE NEEDED IN NURSING PRACTICE: DEMONSTRATES RESPONSIBLE BEHAVIOUR

Demonstrates Responsible Behaviour	Group I		Group II			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	t	p
Utilizes learning opportunities	1.31	.47	1.33	.63	- .21	.83
Self-directive	1.33	.63	1.31	.63	.19	.85
Self confidence	1.53	.85	1.72	.74	-1.04	.30
Evaluates personal growth	1.55	.77	1.36	.64	1.16	.25
Keeps abreast of trends	1.67	.79	1.47	.65	1.14	.26
Maintains ethical standards	1.22	.54	1.36	.64	-1.00	.32
Contributes positive suggestions	1.64	.93	1.67	.86	- .13	.90
Personal appearance appropriate	1.06	.23	1.06	.23	0	1.00

Note: Group I: July Class n = 36
Group II: March Class n = 36

both groups felt very little guidance was needed in carrying out these nursing functions. The null hypothesis, therefore, was not rejected for this area of nursing practice.

While statistically significant differences were found in three nursing practice areas out of a total of sixty-two found in Tables 6-18, there was not sufficient data to reject the general hypothesis.

From the data presented, it may be seen that both groups of graduates perceived their program as having prepared them to perform nursing functions with little guidance needed. While some significant differences did occur between groups, they were not sufficient to reject Hypothesis 2: There will be no significant differences between the two groups in relation to their perceptions of the amount of guidance needed in nursing practice.

Analysis of Comments to Part II of the Questionnaire

Questions 1 and 1A on the questionnaire asked the graduates to make comments about these areas (see Appendix A). The comments were entirely open-ended, with no guidelines given. While not all participants chose to comment, those comments received are presented below.

Comments From Group I Respondents

The comments from Group I indicated that four respondents felt their preparation was adequate:

"Felt I was adequately trained as an RN."

"Theoretically BCIT graduates are well prepared to work upon graduation...."

"Felt I was well prepared but....."

"Suffered through one month of new graduate shock and lost a lot of self confidence. Once it came back felt very confident in myself."

Limited clinical experience was indicated by seven respondents from Group I. Their comments include:

"Not enough practical experience with heavy patient load in an acute setting."

"Need more training in organizing my work load."

"The course was mainly lacking in the area of teaching me skills because of limited clinical practice."

"Felt somewhat limited in organizing my work load."

"Limited experience in clinical area."

"Not enough time in hospital.... Did not know complete role of the team leader."

Three respondents from Group I indicated that they would have preferred more responsibility earlier:

"Not enough practical experience with a heavy patient load."

"Need more training in organizing my work load."

"Limited in organizing work load."

Other comments from Group I included:

"The methods of using the nursing process was different in first and second year. First year concentrated too much on writing.... Second year we could be more specific with our problems and interrelate them. Much more useful."

"I found the basic program had one flaw - inconsistency in instructors between different quarters. This resulted in limited experiences in some of the above areas."

"I don't feel that comfortable with equipment, e.g. cardiac monitors."

"...very hard to adjust being accountable to numerous people for my actions.... And it was very hard to adjust to making nursing decisions independently."

Comments from Group II Respondents

The responses from the Group II sample revealed somewhat similar perceptions. However, their responses appeared more negative. Twelve members of this group (N 58) participated in a pilot Preceptorship Program in their last quarter, instead of taking Advanced Nursing which included one day of class and four days of clinical experience for seven weeks. These twelve students had one week of class at the beginning of the experience followed by six weeks of clinical experience. In the clinical area they were assigned to a Registered Nurse for the whole experience. They followed the Registered Nurse's rotation based on a five day week and thus were exposed to all three shifts. While an instructor was not present, the Registered Nurse or Preceptor supervised the student on all shifts to ensure clinical objectives were met. No evaluation data of this project were available at the time of the study. However, responses from the twelve participating graduates indicated that they thought it was a valuable experience.

The comments of three respondents indicated that they felt they had adequate preparation:

"The general nursing course prepares us quite extensively in theory."

"I participated in the preceptorship program which helped me function and assume the role of a staff nurse."

"I was a member of the preceptorship pilot program which helped me in my ability to function as a beginning staff nurse."

Two other respondents felt that the program did not prepare them extensively in any of the nine areas. Examples of this are

indicated by their comments:

"My R.N. training helped very little in helping me set priorities, assessing skills, etc."

"Our program did not prepare us extensively in any of these areas."

Limited clinical experience was indicated by six respondents. This is reflected in their comments:

"Need more clinical time."

"All nursing skills were demonstrated; however, in some areas we had very limited practice."

"I think final quarter could have been longer...not enough time to learn all we needed to know for team leading."

"Limited instruction in reporting to and working with doctors in assessment."

"Insufficient clinical experience."

"Did not have enough practice in basic skills, e.g. suction, 02, catheterization."

Other comments were:

"More time needed in taking on full responsibility. It was all pushed to the end of the course then just when we started to get the grasp of it the term was over."

"Nursing process appeared to be an intellectualization of the problem-solving process - many instructors hung-up on semantics - seldom used nursing process in the work setting."

"Emphasis on nursing process excellent but often frustrating. So many instructors wanted you to do it their way. What was correct for one instructor was wrong to another."

The comments of the graduates of both groups revealed that limited clinical experience was a weakness of the program perceived by the majority of respondents from both groups which affected their feelings of preparedness.

Comments relating to question 1A (see Appendix A) dealt with how the program helped to promote growth and stimulate interest in continued learning, reflected the same tendency for Group I to be more positive in their opinions about the program. A summary of the comments by eleven respondents from Group I indicated two positive responses, five negative responses and four neutral, with two tending toward the positive and two tending toward the negative side.

Examples of the positive responses were:

"Yes, BCIT prepares students for future education especially in self-learning and initiative."

"Found my curiosity too much as soon as I started to work - no one was encouraging me to be inquisitive as they did while in training."

Examples of the negative comments were:

"Found the program least interested in the individual."

"Program did not encourage student opinions or act upon student suggestions."

"Did not consider individual student needs."

"A member of my immediate family was killed one week prior to exams. I thought I should have been allowed a proverbial (sic) pass. I was instructed by the Quarter Co-ordinator that if I did not feel I could pass the exam it would be better for me to 'drop out' or withdraw. I did not think this empathic or understanding of the administration."

"Altho' we were told we had freedom to enquire and were allowed to participate it was much harder to actually do."

The two neutral responses with positive overtones were:

"Theoretically the program allows for this but functionally the time and opportunity is very limited."

"Most instructors became very defensive when questioned re vagueness of some areas of curriculum. Self study necessary to fill in gaps."

The comments from Group II tended to be more negative and much more emphatic. Of the twelve responses, two were positive, seven were negative and three were neutral with a negative tendency. Examples of the positive comments were:

"There were so many assignments that you had to be independent and self-directive."

"Senior Med-Surg classes especially excellent."

The negative comments were:

"Entire program based on pedagogical rather than an androgogical basis therefore stifled individual growth."

"Did not consider individual student's needs and concerns."

"Very structured program...consideration of individual student's needs and concerns very limited."

"Students could give a lot of input into what they feel is needed in the curriculum, and where time is wasted or information repeated but were not considered."

"Self direction stimulated by only a few instructors."

"I don't think the program promoted personal growth. The student does as he/she is expected to do to get through the program and nothing more."

"The program in no way considered individual student needs and concerns."

Some examples of neutral comments with negative overtones were:

"Hard to sum up whole program in this area as it was very dependent on individual instructor's attitude. Most instructors were very good but I heard of many incidences where they weren't too good."

"Forms were given out after each quarter enabling us to assess teachers and program. Not sure where they went."

"Often it seemed there wasn't enough time to consider individual student's needs."

While the belief that the program promoted growth and interest in continued learning is stated by the faculty, the graduates' comments suggest common concern and a tendency by both groups to disallow this claim.

Question 3 asked the graduates to identify areas in which they felt inadequately prepared. Table 19 contains a summary of their responses. Thirty-one members from Group I and thirty-five members from Group II responded. Since respondents felt inadequately prepared in more than one area the total number of responses exceeds the sample size. Only the most frequent responses were discussed due to the wide variations of suggestions by the groups.

The data on Table 19 show that clinical experience was the primary area in which the graduates of both groups perceived themselves to be inadequately prepared. Almost 50% of each group identified this as their major area of concern, and suggested that more time be spent in the clinical areas in order to perfect their nursing skills. The next area of concern mentioned was Pediatrics. Both groups felt that more time was needed in theory and clinical experience in this area. However, more respondents from Group I indicated they felt inadequately prepared in Pediatrics.

Twelve respondents in both groups stated that they felt Pharmacology was poorly taught. Over half of the respondents suggested that it be integrated throughout the program. More respondents from Group I expressed feelings about inadequate preparation in Pharmacology than did Group II.

TABLE 19

SUMMARY OF RESPONSES
OF AREAS OF PERCEIVED INADEQUATE PREPARATION

Area	Group I	Group II
Clinical Experience	15	17
Pediatrics	8	5
Pharmacology	7	5
Advanced Nursing	5	3
Nursing Laboratories	5	2
Medical-Surgical Nursing	4	2
Obstetrics	3	0
Mental Health	2	3
Curriculum Year I	2	0
Pathophysiology	2	1
Diagnostic Tests	1	1
Human Behaviour	1	1
Community Resources	1	0
Communication Skills	1	1
Microbiology	1	0
Psychiatric Clinical	1	1
Gynecology	0	1
Anatomy	0	2
How to save time	0	1

Note: Group I: July Class n = 31
Group II: March Class n = 35

Five members from Group I felt that the time spent in Advanced Nursing Experience should be extended and that the clinical areas should provide the necessary experiences.

Three members of Group II made similar comments. Five members of Group I and two members of Group II were critical of the Nursing Laboratories as they were conducted in the program. Suggestions to make these laboratories mandatory and for instructors to be present were made.

Medical-Surgical Nursing was another area in which four members of Group I indicated they felt inadequate preparation. Only two members of Group II indicated this feeling.

Three members of Group I felt inadequately prepared in Obstetrics.

Mental Health was another area in which two members from Group I and three members from Group II felt inadequately prepared.

Four members from Group II stated that the information they received in their last quarter should have been given earlier in the program. They felt that discussions on nursing roles and functions, ethics and morals should have been started at the beginning of the program and integrated throughout rather than left to the end.

Table 20 contains a summary of both groups' responses to courses and experiences that they felt could be excluded from the program. Thirty-one responses were received from Group I and thirty-five were received from Group II. The most mentioned course that was felt could be excluded was English. Frequent

TABLE 20

SUMMARY OF RESPONSES FOR COURSES AND EXPERIENCES RECOMMENDED TO BE EXCLUDED

Course or Experience	Group I	Group II
English	15	14
Ambulatory Care	11	14
Immunology	4	13
Microbiology	5	9
Physical Fitness	5	3
Genetics	6	4
Mental Well-Being, Year I	4	3
Community Experience, Year I	3	2
Human Behaviour	2	4
Mental Health	2	3
Communication Skills	1	0
Psychology	1	0
Speed Reading	1	0
Sociology	1	0
Physiology	0	1
Time consuming assignments	0	1
Psychiatric-orientation to courses	0	1
Specialty Areas	0	1

Note: Group I: July Class n = 31
Group II: March Class n = 35

reasons given by both groups were: "too many time consuming assignments", "it was a waste of time", and "should be more tailored to nursing".

The two other frequently mentioned courses were Ambulatory Care and Immunology. Many respondents felt that Ambulatory Care, as it was taught, was repetitious and useless. Suggestions were to integrate this course with Medical-Surgical nursing or Community Experience.

Comments related to Immunology centred around the depth of the course as it was presented in the program. The respondents felt this course should be revised and shortened.

Microbiology was also frequently mentioned. Suggestions regarding this course were: to shorten the course, and make it more pertinent to nursing.

More respondents from Group I indicated that Physical Fitness and Genetics should be excluded from the program. The respondents felt Physical Fitness should not be mandatory and that it should be left up to the individual to decide how active they want to be. Genetics was felt to be treated too much in depth and not related to nursing.

The comments regarding Mental Well Being suggested that rather than being a separate course, it should be integrated throughout all courses.

Two respondents from Group I and three respondents from Group II felt that Mental Health, Year I, should be excluded and stated that the concepts presented were ambiguous and useless.

Human Behaviour was another area that two respondents from Group I and four respondents from Group II felt was unnecessary and that the material presented was not related to nursing.

Community Experience, Year I, was felt to be poorly taught and much time wasted by three respondents from Group I and two respondents from Group II.

Table 21 lists courses that the graduates felt should be added to the program. Thirty-one responses were received from Group I and thirty-four from Group II. The experiences desired by the graduates cover a wide range. By far the most common experiences selected were specialty areas, with Emergency Nursing being the most frequently mentioned area by both groups. This experience is limited in the program due to the clinical facilities utilized. Other specialty areas included Intensive Care Unit, Operating Room and Coronary Care Unit. These experiences are once again very limited in the program and the graduates' perceptions of requiring more experience in these areas was indicated.

Increased clinical time was suggested by both groups along with recommendations to increase second year Medical-Surgical Nursing, to lengthen the program and to have more contact with doctors and hospital staff.

Five respondents from Group I and seven respondents from Group II recommended that Pediatrics be placed in second year and that it be a separate course. Common criticisms were that it was too fragmented and clinical experience was very limited.

TABLE 21

SUMMARY OF RESPONSES FOR AREAS RECOMMENDED TO BE ADDED TO THE PROGRAM

Area	Group I	Group II
Specialty Areas:		
emergency nursing	6	8
intensive care unit	5	1
operating room	5	0
coronary care unit	3	3
recovery room	1	0
intensive care nursery	0	1
More clinical time	19	12
Pediatrics 1	5	7
Pharmacology	5	0
Mental Health	5	4
More responsibility with increased Med.-Surg., Year I	1	5
Increased responsibility and longer team leading experience	2	4
Lab. and X-ray tests	3	0
Psychiatry	3	0
Communication and I.P.R. skills	3	2
More laboratories	2	1
Increased nursing theory	2	2
Integrate advanced nursing	2	5
First Aid not SOFA	1	1

Note: Group I: July Class n = 31
Group II: March Class n = 34

Pharmacology was mentioned by five respondents from Group I with the recommendation that it be integrated throughout the program.

Five respondents from Group I and four respondents from Group II suggested that Mental Health be modified and made more pertinent to nursing.

Five respondents from Group II suggested that Medical-Surgical Experience in Year I be increased with the students given more responsibility.

Increased responsibility and longer team leading experience were suggested by two respondents from Group I and four respondents from Group II.

The areas noted by the graduates as being the most beneficial are shown in Table 22. Thirty-five members from each group responded. As can be seen, the frequency of responses varies between the groups. Anatomy and Physiology and Clinical Experience were felt to be the most beneficial to Group I, while Medical-Surgical Experience was seen as the most beneficial to Group II. Pathophysiology was cited by more Group I respondents than Group II as being beneficial.

Twelve Group I respondents felt Nursing Laboratories were most beneficial as compared to six respondents from Group II. Comments from both groups suggested that the Nursing Laboratories were more beneficial when an instructor was present, and that these laboratories should be mandatory.

Eight respondents from Group I felt that Mental Health, Nursing Theory and Childbearing Family were the most beneficial

TABLE 22

SUMMARY OF RESPONSES OF
MOST BENEFICIAL AREAS PERCEIVED BY GRADUATES

Area	Group I	Group II
Anatomy and Physiology	12	8
Clinical Experience	12	6
Med.-Surg. Year II	10	11
Pathophysiology	9	7
Medical-Surgical	0	8
Mental Health	8	6
Nursing Theory	11	7
Childbearing Family	8	3
Nursing Laboratories	12	6
Psychiatry	3	2
Pediatrics	3	3
Team leading	4	4 (Preceptorship)
Sciences	3	2
Ambulatory care and community agencies	4	2
Human Behaviour	2	3
Second Year Seminars	2	1
Sociology	1	0
English	1	0
Pharmacology	1	2
All Second Year and Second Year Instructors	2	1

Note: Group I: July Class n = 35
Group II: March Class n = 35

areas in their program compared to six, seven and three respondents respectively from Group II.

Four members from Group I felt that their team leading experience was most beneficial while four members from Group II cited their preceptorship experience as being most beneficial for them.

Respondents' comments gave evidence, by the rating of courses and experiences, that the program had prepared them adequately to function as a beginning graduate nurse. However, weaknesses were identified by the graduates in the comments and recommendations which they made concerning their preparation.

Discussion

One of the purposes of this study was to determine the perceived learning needs of two groups of recent graduates from the BCIT general nursing program. The responses of the graduates were expected to shed some light upon the nature of the professional training that they had received vis-a-vis their feelings about the adequacy of their preparation. It was also anticipated that the graduates' responses would provide data with which the curriculum of the nursing program might be examined.

In Chapter II studies were presented which indicated that a skilled clinical nurse could be prepared in two years. However, most of these studies collected data from the employing agencies who evaluated the graduates' functioning ability. Few studies have considered the opinions of the graduates themselves in relation to their perceptions of the effectiveness of their nursing program. It is to this end this study was directed.

In interpreting the data, t- tests were used to compare the responses of two groups of recent graduates to a questionnaire. Besides the statistical treatment of the data, the data were also examined from another perspective. In the analysis of the students' ratings on each of the items on the questionnaire, a rating of 3.0 was taken to mean adequate in terms of the students' perceptions of their training. A rating of less than 3.0 was considered less than adequate; a rating of greater than 3.0 was considered to mean better than adequate. Data in the tables, therefore, were treated to a statistical analysis as well as an analysis of each groups' perceptions of the quality of their preparation.

In relation to Question 1, the data presented in Table 4 show slightly higher mean scores in almost all areas for Group I. However, no significant differences were evident.

Comments from the groups generally support the data that Group I respondents saw their preparation as adequate. Group II respondents indicated various areas in which they felt their preparation could have been more extensive.

Pertinent data relevant to question 1A presented in Table 5, indicated that Group I tended to perceive their program slightly more positively in relation to promoting personal growth and stimulating an interest in continued learning. Significant differences favoring Group I at or beyond the .05 level were seen in three areas. The tendency for Group I to rate all items at a higher level, indicating more extensive preparation, and then make comments that appear to contradict this data is difficult to explain. It must be emphasized that the comments are unique

to the individual while the statistical data are the products of many individual responses.

Question 2 asked the graduates to reflect upon questions related to the content of their basic program. They were asked to assess each of the thirty-two curriculum areas in relation to five variables: a) knowledge, b) competence, c) enjoyment, d) importance, and e) emphasis. A five point scale was employed.

Questions 3-6 were open-ended questions and sought information about areas in which the graduates felt inadequately prepared; courses and experience which they felt could be excluded; courses and experiences which they felt should be added; and areas that they felt were the most beneficial. Responses of the graduates to these questions shed some light on perceptions of strengths and weaknesses of the program.

Data presented in Tables 6 to 18 provided information related to curriculum areas and showed mean scores of both groups together with the t-ratios for the differences between means.

Tables 19 to 22 contain summaries of responses to questions 3 to 6 (see Appendix A).

In examining the mean scores for each of the variables of knowledge, competence, enjoyment, importance and emphasis little difference was seen between the two groups. The majority of scores in all areas indicated that the graduates saw their overall preparation as adequate.

Group I mean scores, in the assessment of knowledge were $\geq$ 3.0 in twenty-seven of the thirty-two curriculum areas while

Group II mean scores were $\geq$ 3.0 in twenty-eight of the thirty-two curriculum areas. This indicated that in over 80% of the curriculum areas both groups perceived their knowledge to be at least adequate. In only two areas, Communication Skills and Basic Human Needs did Group I respondents perceive their knowledge to be more extensive as shown by scores of 4.14-4.28 respectively. Group II respondents indicated more extensive knowledge in four areas, Communication Skills, Basic Human Needs, Physiology, and Childbearing Family Theory, by scores ranging from 4.0-4.19.

However, the curriculum areas in which both groups were in accord on feelings of less than adequate knowledge were in Pharmacology, Community Experience, Microbiology, Genetics and Immunology with Microbiology receiving the lowest score. This may be cause for concern since a good knowledge base in these areas is important.

Group II respondents perceived to be significantly more knowledgeable in the curriculum area of Pediatrics Clinical Experience. The better preparation in Pediatrics felt by the Group II respondents might suggest that a change in the manner in which Pediatrics was taught had occurred. In the summary of comments found in Table 19, eight Group I respondents indicated that their Pediatrics experience in both theory and clinical areas was very fragmented. There may also be a relationship between the availability of clinical facilities in the program and the Group I respondents' perceptions of inadequate preparation in this area.

On the variable of competence, Table 7 showed that both groups indicated feelings of at least adequate competence in twenty-nine

areas with scores of $\geq$ 3.0. Group I respondents felt more competent in five areas, Communication Skills, Basic Human Needs, Nursing Laboratories I, Advanced Nursing Theory and Clinical Experience, with scores ranging from 4.0-4.39. Group II respondents felt slightly more competent in two areas, Communication Skills and Basic Human Needs with scores of 4.08 and 4.17, respectively. Group I assessed their competency in Advanced Nursing Theory as significantly higher than Group II. The two areas in which the groups concur on feelings of less competence were in Microbiology and Immunology. Group I respondents felt less competent in Medical Genetics than did Group II and Group II respondents felt less competent in Community Experience than Group I. This is to be expected since knowledge scores in these areas were low (see Table 6). However, in Pharmacology, despite low ratings on the knowledge variable by both groups, feelings of adequate competency were indicated. There might be a relationship existing between the resources available in the actual work setting and the knowledge variable.

In examining the scores on the variable of personal satisfaction (see Table 8) it is seen that the scores fell between the 3-4 category in the majority of the curriculum areas. Group I assessed their feelings of enjoyment significantly higher than Group II in four of the areas while Group II assessed their feelings of satisfaction significantly higher in two of the curriculum areas. Limited satisfaction was perceived by both groups in Pharmacology, Microbiology, Immunology, Ambulatory Care Theory, and English. Group I indicated less satisfaction in

Genetics and Ambulatory Care Clinical Experience than Group II while Group II indicated less satisfaction in Community Experience than Group I.

In five of the above areas limited knowledge was perceived by both groups which is consistent with the limited enjoyment felt. Comments from both groups regarding the many time-consuming assignments in English might account for the limited enjoyment felt in this area. Both groups felt that Ambulatory Care as taught was repetitive and not very relevant, which could account for the limited enjoyment felt in this area.

The higher scores in most of the areas on the variable of the importance of being thoroughly familiar with the curriculum areas suggest that both groups felt that it is necessary to have a good knowledge base in these areas (see Table 9). In thirty-one curriculum areas, Group I scores ranged from 3.03-4.83, while scores for Group II ranged from 3.06-4.75. Group I felt the importance of being thoroughly familiar with the curriculum areas of Advanced Nursing Theory and Clinical Experience were significantly greater than Group II. However, both groups indicated that the need to be thoroughly familiar with the concepts taught in English to be less important. Group II felt the need to be thoroughly familiar with the concepts taught in Microbiology to be less important as shown by their mean score of 2.97. Dissatisfaction with the method of presentation of English and Microbiology might suggest that the needs of both groups were not met.

The majority of scores on the variable of need for greater emphasis in curriculum areas fell in the range of ≥ 3.0 indicating

that the need for greater emphasis was not seen as necessary (see Table 10). This might suggest that the groups perceived that the curriculum areas were sufficiently covered in the program. However, Group I scores ranged from 2.25-4.0 in thirty-one areas with significant differences in four areas, Community Experience, Childbearing Family Theory, Clinical Experience and Advanced Nursing Theory, suggesting that their exposure to experiences in the work setting might account for this. Group II mean scores ranged from 2.14-3.78 in thirty-one curriculum areas indicating little need for more emphasis in curriculum areas. English was the only curriculum area in which identical scores of 1.67 indicated very little need for more emphasis.

In all general education courses both groups indicated little need for emphasis with scores ranging from 1.67-2.94. This may be due to both groups' feelings of relevance in these courses with respect to their preparation for nursing.

In the graduates' self-evaluation of their ability to perform nursing functions it was expected that a greater discrepancy in scores would occur. The data presented suggests that while Group II indicated a need for more guidance, they appear to feel capable of performing nursing functions in most areas. Group II respondents may be experiencing a false sense of security and once exposed to the work setting may then experience some feelings of inadequacy. In some areas Group I indicated the need for more guidance than Group II. This suggests that experience in the work setting to which Group I have been exposed have not provided them with improved feelings of capability.

Significant differences in the nursing categories of Isolation Techniques and Organization of Nursing Assignments on the Night and Twelve Hour Shift demonstrated by Group II, would suggest that they had limited exposure to this experience in their nursing program. This limited experience may be somewhat compensated by recognition of their need for guidance in these areas in order to function adequately as a beginning staff nurse.

From the data presented, it is seen that both groups of graduates perceive their preparation to be at least adequate in most areas, in spite of some noted feelings of inadequacy. Moreover, with respect to the hypothesis under investigation, it is not clear that work experience significantly improves a graduates' sense of adequacy of preparation.

Conclusions

With respect to the hypotheses under investigation, the following conclusions may be drawn as a result of the study:

1. There is no significant difference between the perceived learning needs of the graduating students from the March 1979 class and the graduating students from the July 1978 class, with three to six months of work experience.

2. There is no significant difference between the two groups in relation to their perceptions of the amount of guidance needed in nursing practice.

Implications

This study attempted to determine whether there were significant differences in the perception of two groups of graduating students from the BCIT general nursing program. One group of graduates sampled had only just completed their nursing education program. The second group had completed their nursing education program six months earlier and had acquired, at the time of the study, three to six months of work experience. Underlying the hypotheses was the idea that work experience might significantly influence the graduates' perceptions of their nursing education program. Another expectation of the study was that responses of the graduates would shed some light on perceived strengths and weaknesses of the nursing education program.

As a result of the investigation, the following implications emerged:

1. Program Preparation

Both groups of graduates felt that their nursing education program had prepared them to function adequately as a beginning practitioner. However, the following weaknesses were noted:

a) Both groups of graduates felt that the program was not congruent with the articulated philosophy.

b) Both groups felt a lack of adequate preparation in the curriculum areas of Microbiology, Immunology and Pharmacology.

c) Both groups of graduates perceived their training to be too limited with respect to clinical experience and suggested

a relationship between this perceived weakness and their feelings of preparedness.

d) Group I, the graduates with three to six months work experience, felt less knowledgeable in the curriculum areas of Genetics and Pediatrics.

e) Group II, the newly graduated students, felt a lack of adequate preparation in the curriculum area of Community Experience.

2. Satisfaction With Respect to Training

Both groups of graduates felt, in general, that they were satisfied with the training received. However, both groups felt less than satisfied with their training in the curriculum areas of Microbiology, Immunology, Pharmacology, English and Ambulatory Care Theory. In addition, Group I felt less than satisfied with their training in the curriculum areas of Genetics and Ambulatory Care Clinical Experience. Also, Group II respondents were less satisfied with their training in the curriculum area of Community Experience.

3. Importance of Being Thoroughly Familiar With Curriculum Areas

Both groups of graduates, in general, felt that it was important to be thoroughly familiar with the majority of the curriculum areas. Group I felt that it was significantly more important to be thoroughly familiar with the curriculum areas of Communication Skills, Anatomy and Physiology, Microbiology, Physiology, and Advanced Nursing Theory and Clinical Experience. However, both groups felt it was less important to be thoroughly

familiar in the curriculum area of English. Also, Group II felt that it was less important to be thoroughly familiar in the curriculum area of Genetics.

4. Need for More Emphasis

Both groups of graduates felt, in general, that there was little need for more emphasis in the majority of curriculum areas, especially English. However, Group I felt a significant need for more emphasis in the curriculum areas of Community Experience, Childbearing Family Theory and Clinical Experience, Advanced Nursing Theory and Pediatrics.

5. Need for Guidance

Both groups of graduates, in general, felt little need for guidance in performing nursing functions. However, Group II felt a significant need for more guidance in the nursing practice areas of Setting Up and Maintaining Isolation Precautions and in Organizing Nursing Assignments on the Night and Twelve Hour Shifts.

6. Need for Further Study

a) In the curriculum area of Pediatrics, the Group II respondents felt more adequately prepared and felt greater satisfaction in the curriculum areas of Physical Fitness and Childbearing Family Theory than the Group I respondents with three to six months work experience. These data seem discrepant with the rest of the data and may be important to investigate further.

b) In the curriculum areas of Microbiology, Immunology and Pharmacology both groups of graduates felt a lack of adequate

preparation. Also, Group I felt less knowledgeable in Genetics. These data seem to warrant further study.

c) It may be useful to replicate the study using the current BCIT nursing students as respondents. To ensure a greater return on the questionnaire, the data may be gathered while the students are still attending class.

d) The preceptorship program, while not under investigation in this study, appeared in the graduates' responses to the open-ended questions as an influential program variable. Consequently, it may be worthwhile to systematically examine the effects of this program on the total training.

APPENDIX A

THE QUESTIONNAIRE

Dear Graduate:

In partial fulfillment of the requirements for the degree of Master of Arts (Education), in the Faculty of Education, Simon Fraser University, I have chosen to study the perceived learning needs of the beginning graduate of the B.C.I.T. general nursing program. In order for the study to be valid I need to have the co-operation of the whole class. I am absolutely dependent upon your participation in this study.

I would greatly appreciate your assistance in the study by completing the enclosed questionnaire. The questionnaire will take approximately one half hour to fill out. Anonymity will be ensured. No individual responses will be shared with any associate, student or S.F.U. faculty. Employing agencies will not be identified. I hope you will feel free to express your frank opinions. Your answers to ALL the questions are important for the successful completion of the study.

Enclosed is a self-addressed, stamped envelope for the return of the questionnaire. The return of the completed questionnaire as soon as possible or by April 1, 1979 will be greatly appreciated.

Please accept my sincere thanks for your assistance in helping me with this study.

Yours sincerely,

Mary W. Whitehead

GENERAL INFORMATION

Directions: Please fill in spaces or check as indicated. If not employed in nursing omit questions 5 and 6.

1. Date of graduation: ________________

2. Age:
   - [ ] under 21
   - [ ] 21 to 24 years
   - [ ] 25 to 29 years
   - [ ] 30 to 34 years
   - [ ] 35 to 39 years
   - [ ] over 40 years

3. Sex:
   - [ ] Female
   - [ ] Male

4. Marital status:
   - [ ] Single
   - [ ] Married
   - [ ] Widowed.
   - [ ] Separated
   - [ ] Divorced

5. Present status of nursing employment.
   - [ ] Full time
   - [ ] Permanent Part-time
   - [ ] Relief

6. (a) Positions since graduation.

   (1) Hospital staff nurse. [ ]

   (2) Hospital team leader. [ ]

   (3) Assistant head nurse. [ ]

   (4) Head nurse. [ ]

   (5) Nurse in Doctor's office. [ ]

   (6) Nurse in home care. [ ]

   (7) Other (please specify). ________________

6. (b) Clinical area employed in:

Medical	______	Intensive care unit	______
Surgical	______	Coronary care unit	______
Obstetrical	______	Emergency	______
Pediatric	______	Intensive care nursery	______
Psychiatric	______	Extended care	______
Rehabilitation	______	Other (specify)	____________

7. Information about hospital and other health agencies you are employed by:

   Name.

   Address.

   Size.

8. If you are not presently employed in nursing, what are you doing?

   Housewife. ________

   Student. ________

   Other employment (specify) ______________________________

9. If you are not now employed in nursing, do you plan to return to the practice of nursing in the future?

   Yes ________ No ________

1979 GRADUATES ONLY

GENERAL INFORMATION

1. Date of graduation. ____________________

2. Age: [ ] under 21 [ ] 30 to 34 years
   [ ] 21 to 24 years [ ] 35 to 39 years
   [ ] 25 to 29 years [ ] over 40 years

3. Sex: [ ] Female [ ] Male

4. Marital status: [ ] Single [ ] Separated
   [ ] Married [ ] Divorced
   [ ] Widowed.

5. Do you plan to work in nursing following graduation?

   Yes ________ No ________

6. Have you arranged for employment following graduation?

   Yes ________ NO ________

7. If answer to number 6 is Yes, what area will you be employed in?

   Medical ______ Surgical ______
   Obstetrical ______ Pediatric ______
   Psychiatric ______ Other (specify) ____________

PART II

In this section you are asked to reflect upon questions related to the content of your basic nursing program. Please place a cross (X) in the category that best represents your opinion.

1. How well do you think your basic program prepared you in the following areas:

	PREPARATION				
	Very Limited			Very Extensive	
	1	2	3	4	5
(a) To apply the nursing process to assess, plan,implement, evaluate and modify nursing care.					
(b) To perform nursing skills related to the maintenance, promotion and restoration of health.					
(c) To provide personalized nursing care in order to assist individuals with their basic health problems which result from an interference with their basic needs.					
(d) To assume professional responsibility and accountability for assigned nursing care.					
(e) To communicate effectively as a member of the health care team.					
(f) To use community health care agencies in assessing, planning, implementing and evaluating nursing care.					
(g) To function as a beginning staff nurse.					

	PREPARATION				
	Very Limited				Very Extensive
	1	2	3	4	5
(h) To set priorities, to organize workloads for the assessing, planning, implementing, evaluating and modification of assigned nursing care.					
(i) To demonstrate responsible and accountable behaviors to the patient nursing profession and employing agency.					

Comments:

1-A To what extent do you feel your basic program promoted personal growth and an interest in continued learning?

	PREPARATION				
	Very Limited				Very Extensive
	1	2	3	4	5
(a) Encouraged student participation in assessing, planning, implementing and evaluating the curriculum.					
(b) Fostered freedom of inquiry for students.					
(c) Considered individual student's needs and concerns.					
(d) Stimulated self direction and independent learning by students.					

Comments:

2. Directions: In this section you are asked to reflect upon questions <u>related to the content</u> of your basic program. Please place a number under the category that best represents your opinion.

CURRICULUM AREAS	Self-assessment of knowledge in this area.	Competence in this area of nursing.	Personal satisfaction in this area of nursing.	Importance of thorough familiarity with this area.	Need for greater emphasis in basic program to acquire knowledge in this area.
A. NURSING I	Very Limited ... Very Extensive	Very Limited ... Very Extensive	Very Limited ... Very Extensive	Not Important ... Very Impt.	Very Little ... Very Great
1. NURSING THEORY I	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
a) Pharmacology					
b) Communication skills					
c) Basic human needs					
2. ANATOMY & PHYSIOLOGY					
3. HUMAN DEVELOPMENT					
4. MICRO - BIOLOGY					
5. PHYSIOLOGY					
6. MEDICAL GENETICS					
7. HUMAN BEHAVIOUR I					
8. NURSING LABS.					

2. Directions: In this section you are asked to reflect upon questions <u>related to the content</u> of your basic program. Please place a number under the category that best represents your opinion.

CURRICULUM AREAS YEAR I	Self-assessment of knowledge in this area.	Competence in this area of nursing.	Personal satisfaction in this area of nursing.	Importance of thorough familiarity with this area.	Need for greater emphasis in basic program to acquire knowledge in this area.
	Very Limited — Very Extensive	Very Limited — Very Extensive	Very Limited — Very Extensive	Not Important — Very Impt.	Very Little — Very Great
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9. CLINICAL EXPERIENCE					
a) Community					
b) Hospital					
B. NURSING II 1. NURSING THEORY II					
2. PATHO-PHYSIOLOGY					
3. HUMAN BEHAVIOUR II					
4. IMMUNOLOGY & HYPERSENSITIVITY					
5. PHYSICAL ITNESS					
6. NURSING LABS.					

2. Directions: In this section you are asked to reflect upon questions related to the content of your basic program. Please place a cross (X) under the category that best represents your opinion.

CURRICULUM AREAS	Self-assessment of knowledge in this area.	Competence in this area of nursing.	Personal satisfaction in this area of nursing.	Importance of thorough familiarity with this area.	Need for greater emphasis in basic program to acquire knowledge in this area.
	Very Limited — Very Extensive	Very Limited — Very Extensive	Very Limited — Very Extensive	Not Important — Very Impt.	Very Little — Very Great
7. CLINICAL EXPERIENCE	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
a) Pediatrics					
b) Medical-surgical.					
YEAR II C. NURSING THEORY III					
1. CHILDBEARING FAMILY					
2. MENTAL HEALTH NURSING					
3. AMBULATORY CARE					
4. MEDICAL SURGICAL NURSING					
5. ENGLISH					
6. NURSING LABS.					

2. Directions: In this section you are asked to reflect upon questions <u>related to the content</u> of your basic program. Please place a number under the category that best represents your opinion.

CURRICULUM AREAS	Self-assessment of knowledge in this area.	Competence in this area of nursing.	Personal satisfaction in this area of nursing.	Importance of thorough familiarity with this area.	Need for greater emphasis in basic program to acquire knowledge in this area.
YEAR II					
7. CLINICAL EXPERIENCE	Very Limited — Very Extensive	Very Limited — Very Extensive	Very Limited — Very Extensive	Not Important — Very Impt.	Very Little — Very Great
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
a) Mental Health nursing.					
b) Childbearing family					
c) Ambulatory care					
d) Medical - surgical nursing					
D. NURSING IV					
1. ADVANCED NURSING					
2. CLINICAL EXPERIENCE ADVANCED NURSING					

If space provided is not adequate please use reverse side of this sheet.

3. What recommendations would you make about those areas in which you felt inadequately prepared?

4. List courses and experiences which you feel could be excluded from the program. Please state reasons.

5. List courses and experiences which you feel should be added to the program.

6. What do you feel were the most beneficial areas in your program?

PART III

NURSING PRACTICE

This portion of the questionnaire is similar to a self-evaluation form. As a beginning staff nurse, please indicate your estimation of your ability to perform the nursing functions included on the following pages by placing a cross (X) in the appropriate column. In rating yourself, a scale from No Guidance to More Than Average Guidance is provided. Guidance is defined as the assistance required for the performance of a function. This assistance could be obtained in a number of ways, e.g. through text books, hospitals, nursing and medical personnel, policy and procedure manuals, etc.

The scale is to be interpreted as follows:

No Guidance: Able to carry out function without assistance.

Little Guidance: Requires minimum guidance to carry out function in all areas.

Average Guidance: Able to carry out function under usual conditions, requires guidance in new or unusual situations.

More Than Average Guidance: Requires assistance in carrying out function in all situations.

Please remember that all information provided will be considered confidential. The names of the individuals participating in the study will not appear in the study. Please be as honest as possible in your self-evaluation.

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
I Application of the Nursing Process.				
1. Assesses the needs of an individual and/or family.				
2. Identifies actual and/or potential health problems.				
3. (a) Plans and implements nursing intervention to resolve, attenuate or control the identified problem.				
(b) Sets priorities for the nursing intervention.				
4. Evaluates the effect of the nursing intervention.				
5. Uses the results of the evaluation to: (a) Reassess needs and problems.				
(b) Modify care.				
(c) Plan future care.				
(d) Provide basis for the nursing intervention or implementing change.				
II Performs Nursing Skills Related to the Maintenance Promotion and Restoration of Health. 1. Prepare and carry out a plan of care to meet basic needs of all patients.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
2. Administer drugs safely and in accordance with Canadian drug laws:				
(a) Oral.				
(b) Intramuscular.				
(c) Subcutaneous.				
(d) Intravenous.				
3. Assist with diagnostic procedures, this is, prepare patient and assist in collecting specimens (X-ray and laboratory).				
4. Determine the significance of the results of common diagnostic tests.				
5. Perform simple procedures, e.g. vital signs, enema, positioning patient, etc.				
6. Perform complex procedures, e.g. irrigations, catheterizations, suctioning, tracheostomy, etc.				
7. Operate special equipment, e.g. oxygen, suction, beds, etc.				
8. Set up and maintain isolation precautions.				
9. Carries out pre and post-operative nursing measures safely and effectively.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
III. Provide Personalized Nursing Care in Order to Assist Individuals With Their Health Problems Which Result from an Interference With Their Basic Needs.				
1. Plans individualized nursing care of patients based on:				
(a) Knowledge of the patient's health problem.				
(b) Direct observation.				
(c) Information obtained from patient's history, family or other members of the health team.				
2. Plans nursing care according to the priorities of the patient's needs.				
3. Provides nursing care in accordance with the patient's and family's cultural and religious beliefs regarding various medical or related practices.				
4. Displays a caring attitude when providing nursing care.				
IV Assumes Professional Responsibilities and Accountability for Assigned Nursing Care.				
1. Carries out nursing actions within the scope of legal nursing practice.				
2. Accepts responsibility for decisions and actions as a beginning staff nurse.				
3. Acts within the policies of the hospital or health agency.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
4. Holds in confidence all privileged information of the patient and family.				
5. Maintains the therapeutic regimen planned by other members of the health team.				
6. Sustains patient's confidence in the physician and other members of the health team.				
7. Recognizes limitations in giving nursing care and seeks appropriate resources.				
V <u>Communicates Effectively as a Member of the Health Care Team</u>.				
1. Records data accurately and completely on patient's chart.				
2. Communicates effectively in patient care situations.				
3. Observes and reports changes in the patient's condition to the appropriate person.				
4. Explains procedures, diagnosis or treatments in terms that can be understood by the patient and/or family.				
5. Consistently teaches individuals and their involved family members to develop and/or maintain appropriate responses to attain or maintain health.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
VI Uses Community Health Care Agencies in Assessing, Planning, Implementing and Evaluating Nursing Care.				
1. Knowledgable of the community health care agencies and the services they offer.				
2. Shares information regarding community agencies with patient and family.				
3. Makes referrals where indicated through proper channels.				
VII Functions As a Beginning Staff Nurse.				
1. Demonstrates ability to organize a nursing assignment for groups of patients on:				
(a) Day shift.				
(b) Evening shift.				
(c) Night shift.				
(d) Twelve (12) hour shift.				
2. Prepares clear, concise and accurate written and oral reports.				
3. Interpret doctor's orders and translate them into nursing action.				
4. Assume the responsibility of team leader when assigned this role.				
5. Uses lines of authority and communication appropriately.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
VIII Sets Priorities, Organizes Work Loads for the Assessing, Planning, Implementing and Evaluating Nursing Care.				
1. Seeks and utilizes the services of the various members of the health team in meeting the needs of the patient and his family.				
2. Is cooperative and courteous to all members of the health team.				
3. Delegates appropriate activities to auxiliary personnel.				
4. Provide appropriate guidance for auxiliary personnel in planning and giving effective nursing care.				
IX Demonstrate Responsible, Accountable Behaviors to the Patient, Nursing Profession and Employing Agemcy.				
1. Seeks and utilizes learning opportunities constructively.				
2. Is self-directive in fulfilling nursing goals.				
3. Displays self confidence in the performance of nursing activities.				
4. Evaluates professional growth continuously.				
5. Keeps abreast of recent trends.				

	No Guidance	Little Guidance	Average Guidance	More Than Average Guidance
6. Maintains ethical standards in nursing as defined in the I. C. N. code for nurses.				
7. Contributes positive suggestions for change through appropriate channels.				
8. Personal appearance is appropriate to the setting.				

APPENDIX B

BCIT GENERAL NURSING CURRICULUM

Overview of the General Nursing Program at BCIT

In 1958 it was discovered that there was no technological training available in Canada and in order to fill job vacancies, technologists were being brought into the country from abroad. In 1959 the Bridge Report recommended that a technological institute be built in British Columbia. After the passing of the Technical and Vocational Training Assistance Act in 1960 which provides for joint federal-provincial funding of technical and vocational schools, the government of British Columbia announced plans to build BCIT. In 1964 BCIT was opened and in 1967 the nursing diploma program was introduced.

The Program

In accordance with the recommendations of the Registered Nurses' Association of British Columbia, the nursing program prepares graduates to seek employment in general hospitals (or other health care agencies) where a comparable level of patient care and nursing judgement are required. It provides twenty-two months of instruction during a two and one-third year interval. Enrolment in the program is in January or August of each year. The program has five general areas of instruction: medicine, surgery, maternity, pediatrics, and psychiatric nursing. Lectures, tutorials and lab sessions are complemented by clinical experience in a variety of settings.

Prerequisites

Graduation on the Selected or Combined Studies Program with Chemistry 11 and either Biology 12 or Chemistry 12. Grades of C+

(65 percent) or better are preferred. There is provision for "mature student" admission. Candidates in this category must be 25 years or older and will be assessed on an individual basis. Successful completion of a recent course of study is preferred. All applicants should be physically healthy and emotionally stable. Applicants must pass a physical examination and have a satisfactory interview prior to acceptance. Students are expected to be competent in written and oral English. Students are also advised to complete the Safety-Oriented First Aid Course prior to admission. The course may be taken during the first term of the program on the student's own time and at his or her own expense.

Beliefs and Purposes

A. Beliefs

The faculty of the General Nursing Program at the British Columbia Institute of Technology believe that the satisfaction of human needs is an essential requirement for health and for the development of human potential. Health is a state of physical, social and mental well being which enables individuals to achieve and maintain their optimal levels of functioning. In addition, all people are entitled to the quality and quantity of care and assistance which they require in order to achieve and maintain health.

Nursing is the provision of assistance required by individuals of all ages in order to meet basic needs and move towards a state of health. It involves

> assisting the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to a 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.*

Nurses achieve this function by collaborating with members of the health team and by using the nursing process to assess, plan, implement and evaluate nursing care.

The nursing process is a problem-solving method based upon the use of assessment and communication skills and the application of knowledge, professional judgement and psychomotor skills applied in the following manner:

a) assesses the health needs of an individual and/or family

b) identifies the actual and/or potential health problems

c) plans and implements nursing interventions designed to resolve, attenuate, or control the identified problems. Included in the planning is setting priorities for the nursing interventions.

d) evaluates the effects of the nursing interventions

e) uses the results of evaluation to reassess needs and problems; to modify care; to plan future care; and to provide the basis for implementing change

To ensure the provision of effective nursing care, we believe a basic nursing education program should be offered in an educational institution and that it needs to include principles

---

* Harmer, Bertha and Henderson, Virginia. Textbook of the Principles and Practice of Nursing, 5th ed., The MacMillan Co., New York: 1955, page 5.

from the biophysical and behavioural sciences. These are then incorporated into a body of knowledge which will provide a basis for assessing, planning, implementing and evaluating nursing interventions. We also believe a basic nursing program should focus on values and attitudes related to human worth and dignity and that it should foster development of professional responsibility and accountability within the nurse.

We also believe the program should focus on the application of this knowledge using the nursing process and should provide the instruction and practice required in order that students develop skills using the nursing process. We also believe a basic nursing education program needs to have adequate resources and facilities to provide an environment for effective learning and that it should be under the direction and control of qualified faculty who can facilitate learning and act as role models.

We further believe a basic nursing program should promote personal growth and an interest in continued learning by:

a) encouraging student participation in assessing, planning, implementing and evaluating the curriculum

b) fostering freedom of enquiry for students

c) considering individual students' needs and concerns

d) stimulating self-direction and independent learning by students

B. <u>Purposes</u>

In accordance with the recommendations of the Registered Nurses' Association of British Columbia, the graduate of the

program will be prepared to seek employment in general hospitals and other health care agencies where a comparable level of nursing care and judgement are required. Here he/she will work under the general supervision of a nurse in charge and will receive support and assistance from an experienced registered nurse.

Working within the framework of the established policies, procedures and routines of the employing agency, the graduate will provide nursing care for infants, children and adults. Exceptions are those people who are in a critically unstable condition and/or predictably require rapid assessment and immediate judgement for nursing action.

The Conceptual Framework

The BCIT curriculum is based upon the stated beliefs of the program and the concept of basic needs. The six basic needs are:

1. Activity
2. Elimination
3. Mental well-being
4. Nutrition
5. Oxygen
6. Protection

The meeting of each basic need is affected by four influencing factors:

1. Biological inheritance
2. Developmental maturation
3. Environmental variables
4. Individual differences

The six basic needs, and their four influencing factors provide the basis for the curriculum content. The nursing curriculum is viewed in relation to the provision of health care to individuals and families in order to maintain, promote and/or restore health. The curriculum is organized into four levels:

Level I: Nursing Care Related to the Maintenance of Health

Level II: Nursing Care Related to the Promotion of Health

Level III: Nursing Care Related to the Restoration of Health

Level IV: Integration of Nursing Care

The first three levels reflect the progression from activities of daily living to basic health problems to complex health problems. Level IV completes the program of studies and is of a different order than the previous three levels. Basic needs and their influencing factors continue to form the basis for nursing care. At this time, however, the scope of the learning experience includes all levels of health care: maintenance, promotion and restoration. The focus of this unit is viewed as a time to integrate previously learned knowledge and skills and to further develop skill and the understanding of organization and judgement applied to a clinical setting.

The threads running throughout the curriculum can be identified as:

1. Nursing Process
2. Professional Behaviours

Curriculum Objectives

In hospitals and other health care agencies where a comparable level of nursing care and judgement are required, the graduate of this program will provide nursing care to individuals of all ages and will:

1. apply the nursing process to assess, plan, implement, evaluate and modify nursing care

2. perform nursing skills related to the maintenance, promotion and restoration of health

3. provide personalized nursing care in order to assist individuals with their health problems which result from an interference with their basic needs

4. assume professional responsibility and accountability for assigned nursing care

5. communicate effectively as a member of the health care team

6. uses community health care agencies in assessing, planning, implementing and evaluating nursing care

7. function as a beginning staff nurse

8. set priorities, organize workloads for the assessing, planning, implementing, evaluating, and modification of assigned nursing care

9. demonstrate responsible and accountable behaviours to the patient, the nursing profession and the employing agency

LEVEL OBJECTIVES

LEVEL I	LEVEL II	LEVEL III	LEVEL IV
QUARTERS A&B	QUARTERS C&D	QUARTERS E, F & G	QUARTER H
Nursing Care Related to Maintenance of Health Nursing 1A & 1B	Nursing Care Related to Promotion of Health Nursing 11A & 11B	Nursing Care Related to Restoration of Health Nursing 111A,111B & 111C	Integration of Nursing Care Nursing IV
For assigned individuals of all ages in the community and in hospital settings who require assistance in maintaining health and performing the activities of daily living, the student will,	For assigned individuals of all ages in hospital settings who are experiencing basic health problems with stable and predictable outcomes.	For individuals of all ages in hospitals and other health care agencies who are experiencing complex health problems with changing and/or predictable outcomes, the student will,	For all adults in general hospital settings who are experiencing diversified health problems, the student will,
1. apply the nursing process to assess, plan, implement and evaluate nursing care related to the maintenance of health and to the resolution of actual or potential health hazards.	apply the nursing process to assess, plan, implement and evaluate nursing care related to actual or potential interference with a specified need.	apply the nursing process to assess, plan, implement and evaluate nursing care related to actual or potential interference with one or more needs.	apply the nursing process to assess, plan, implement and evaluate nursing care for an assigned group which represents the workload of a beginning staff nurse.
2. perform nursing skills related to the activities of daily living and the maintenance of health.	perform nursing skills related to health promotion.	perform nursing skills related to health restoration.	perform nursing skills related to the maintenance, promotion and restoration of health.
3. provide personalized nursing care related to health maintenance	provide personalized nursing care related to health promotion.	provide personalized nursing care related to health restoration.	provide personalized nursing care related to health maintenance, promotion and restoration.
4. develop an awareness of personal professional responsibility for the nursing care he/she provides.	assume responsibility for the nursing care he/she provides.	assume responsibility for the assigned nursing care.	assume responsibility and accountability for nursing care for an assigned group equal to the workload of a beginning staff nurse.

LEVEL OBJECTIVES

LEVEL I	LEVEL II	LEVEL III	LEVEL IV
QUARTERS A&B	QUARTERS C&D	QUARTERS E,F & G	QUARTER H
5. communicate appro-riately with assigned individuals, nursing personnel and instructors concerning health main-tenance.	communicate effectively with assigned indivi-duals, nursing personnel and instructors concern-ing health promotion.	communicate effectively with health team members concerning the provisions and evaluations of nursing care for assigned indivi-duals.	communicate effectively as a member of the health team responsible for the nursing care of a group of individuals.
6. identify community resources that assist individuals and families maintain health.	identify community resources that assist individuals and families to promote health.	utilize community resources in planning and evaluating care for assigned indivi-duals.	utilize community resources in assessing, implementing, planning, and evaluating nursing care.
7. identify the role of a student nurse in the provision of care.	assume the role of the student nurse in the provision of care.	assume the role of the student nurse in implem-enting and evaluating nursing care for assigned individuals.	assume the role of a beginning staff nurse in the assessing, planning, implementation and evaluation of nursing care.
8. complete assignments within a defined period of time.	set priorities for the provision of assigned nursing care within a specified time.	organize workload to facilitate implementation and evaluation of care within a specified time.	set priorities and organize workload to facilitate the provisions and evaluation of nursing care for an assigned group within a specified time.
9. seek assistance when experiencing diff-iculty in assessing, planning, implenting or evaluating nursing care.	provide safe nursing care related to health promotion.	provide safe and compre-hensive nursing care to assigned individuals.	be responsible and accountable for the provisions of safe nursing care to a group of individuals whose require-ments for care represent an average workload for a begin-ning staff nurse.

Course of Studies

YEAR I

LEVEL 1

	Quarter A	Classroom hours per week
76.A20	Nursing 1A	8
76.A25	Clinical Experience for Nursing 1	10
98.A06	Anatomy and Physiology	4
98.A50	Human Development	4
98.A44	Microbiology	4
	Library and Research	5
		35

	Quarter B	
76.B20	Nursing IB	8
76.B25	Clinical Experience for Nursing II	10
98.B06	Physiology	4
98.B16	Medical Genetics	4
98.B30	Human Behaviour I	5
	Library and Research	5
		35

LEVEL II

		Classroom hours per week
Quarter C		
76.C30	Nursing IIA	8
76.C35	Clinical Experience for Nursing III	10
98.C06	Pathophysiology	4
98.C30	Human Behaviour II	4
98.C44	Principle of Immunology and Hypersensitivity	4
	Library and Research	5
		35
Quarter D		
76.D26	Physical Fitness	2
76.D30	Nursing IIIB	12
76.D35	Clinical Experience in Nursing III	14
	Library and Research	5
		33

YEAR II

LEVEL III

		Classroom hours per week
Quarter E		
31.E04	English	4
76.E30	Nursing IIIA The Childbearing Family	8
76.E35	Experience with the Childbearing Family	18
	or	
76.E39	Nursing IIIB Ambulatory Care	4
76.E40	Mental Health Nursing	4
76.E44	Clinical Experience for Ambulatory Care	9
76.E45	Experience for Mental Health Nursing	9
	or	
76.E50	Nursing IIIC Medical-Surgical Nursing	9
76.E55	Experience for Medical-Surgical Nursing	12
	Library and Research	5
		35
Quarter F		
31.F04	English	4
76.E30	Nursing IIIA The Childbearing Family	8
76.E35	Experience with the Childbearing Family	18
	or	
76.E39	Nursing IIIB Ambulatory Care	4
76.E40	Mental Health Nursing	4
76.E44	Clinical Experience for Ambulatory Care	9

		Classroom hours per week
Quarter F (continued)		
76.E46	Experience for Mental Health Nursing	9
	or	
76.E50	Nursing IIIC Medical-Surgical Nursing	9
76.E55	Experience for Medical-Surgical Nursing	17
	Library and Research	5
		35
Quarter G		
E	Elective	3
	and	
76.E30	Nursing IIIA The Childbearing Family	8
76.E35	Experience with the Childbearing Family	18
	or	
76.E39	Nursing IIIB Ambulatory Care	4
76.E40	Mental Health Nursing	4
76.E44	Clinical Experience for Ambulatory Care	9
76.E45	Experience for Mental Health Nursing	9
	or	
76.E50	Nursing IIIC Medical-Surgical Nursing	9
76.E55	Experience for Medical-Surgical Nursing	17
	Library and Research	5
		34

LEVEL IV

		Classroom hours per week
Quarter H		
76.H70	Advanced Nursing	4
76.H75	Experience for Advanced Nursing	32
		36

The first three levels of the program reflect the progression from activities of daily living to basic health problems to complex health problems. Level IV includes all levels of health care in the scope of the learning experience.

Subject Outline

LEVEL I

NURSING IA
76.A20 and 76.A25

NURSING CARE RELATED TO MAINTENANCE OF HEALTH

Nursing IA, a combined theory, laboratory and clinical practice course, introduces the beliefs and purposes of the curriculum of the general nursing program. The needs for protection, activity and mental well-being will be studied in relation to assessment of health status and nursing interventions to maintain health. The role of the nurse focuses on assisting an individual of any age with the activities of daily living. Professional behaviours are stressed during experiences in hospital and community settings.

NURSING IB
76.B20 and 76.B25

Nursing IB, a combined theory, laboratory and clinical practice course, continues with the study of basic needs and their influencing factors. The needs for oxygen, nutrition, elimination and mental well being will be studied in relation to assessment of health status and planning of nursing interventions to maintain health. The role of the nurse focuses on assisting individuals of all ages with their activities of daily living. Professional behaviours are stressed during experiences in hospital and community settings.

ANATOMY AND PHYSIOLOGY
98.A06

A survey of the basic structure and function of the systems of the human body.

HUMAN DEVELOPMENT
98.A30

The course focuses on the process of growth and development throughout the life cycle. Physical, cognitive, affective and social development are surveyed. Emphasis is placed on relating developmental concepts to health care.

MICROBIOLOGY
98.A44

An introduction to the basic microbiological concepts, including the distinguishing characteristics of micro-organisms, methods of controlling infectious disease and host-parasite relationships.

PHYSIOLOGY
98.B06

A study of physiological regulation and control based on the fundamentals introduced in the basic anatomy and physiology course.

MEDICAL GENETICS
98.B16

A course designed to teach basic principles of human genetics. By the use of actual examples, the various mechanisms in the transmission of genetic traits are discussed, and include dominant, recessive, intermediate, and sex-linked inheritance; chromosomal aberrations, mutagenic agents; consanguinity; mutants and mutant rates. A discussion on amniocentesis and genetic counselling is included. This course should provide the student with a better understanding of some of the medical cases that will have to be administered and cared for.

HUMAN BEHAVIOUR I
98.B30

This course provides an interdisciplinary approach to the study of human behaviour. Basic terminology and concepts of psychology and sociology are presented. In addition, research methods and theories of human behaviour are reviewed.

LEVEL II

NURSING IIA
76.C30 and 76.C35

NURSING CARE RELATED TO THE PROMOTION OF HEALTH

Nursing IIA, a combined theory, laboratory and clinical course, focuses on the role of the nurse in using the nursing process to promote health for an individual any age who is experiencing basic health problems with the selected needs of mental well-being, protection and oxygen. Selected interferences are studied in relation to basic physiological alterations, psychosocial effects, influencing factors, diagnostic procedures and appropriate therapies and nursing interventions.

NURSING IIB
76.D30 and 76.D35

Nursing IIB, a combined theory, laboratory and clinical course, focuses on the role of the nurse in using the nursing process to promote health for an individual of any age who is experiencing basic health problems with the needs for nutrition, elimination and activity. Selected interferences are studied in relation to basic physiological alterations, psychosocial effects, influencing factors, diagnostic procedures and appropriate therapies and nursing interventions.

PATHOPHYSIOLOGY
98.B06

A study of physiological regulation and control based on the fundamentals established in Anatomy and Physiology 98.A06.

HUMAN BEHAVIOUR II
98.C30

This course further develops the interdisciplinary approach to the study of human behaviour. Emphasis is placed on the study of the family as a social institution as well as on other forms of group process and collective behaviour. The relationship between behavioural sciences and problems of health care is explored.

PRINCIPLES OF IMMUNOLOGY AND HYPERSENSITIVITY
98.C44

The course provides the student in nursing with a basic understanding of the broad field of immunology. Specifically directed to nursing, the course deals with body defences to disease; the types and characteristics of immunity; humoral and cellular immunity; autoimmunity; surveillance and homeostasis; antigens and antibodies, their characteristics and functions; hypersensitivities, their diagnosis, characteristics and control;

immunogenetics; hemolytic diseases; immune deficiencies and related diseases; organ and tissue transplantation. The course requires a sound basic knowledge of physiology.

PHYSICAL FITNESS
76.D26

A combined theory and practice course designed to emphasize the relationship of the physical fitness to lifestyle problems. The focus will be placed on the student's own activity pattern.

YEAR II

LEVEL III

NURSING CARE RELATED TO RESTORATION OF HEALTH

ENGLISH I and II
31.E04 and 31.F04

This course runs for two quarters. English I covers the general principles of writing. English II involves a study of modern English Literature.

NURSING III

Concurrent theory, laboratory and clinical practice in Nursing III will focus on the role of the nurse as a health team member in the restoration of the health for individuals with complex health problems. The student will have experience in family-centred maternity units, acute psychiatric area of a general hospital or a Psychiatric Day Centre, in a community agency and a medical-surgical area. At the end of the experience the student will apply the nursing process related to actual or potential interferences with one or more needs. The student will implement and evaluate nursing care and provide safe and comprehensive nursing care to assigned individuals.

NURSING IIIA - "NURSING THE CHILDBEARING FAMILY"
76.E30 and 76.E35

Nursing IIIA, a combined theory and clinical practice course, focuses on nursing interventions that assist families in the restoration of their optimal level of functioning throughout the experience of childbearing and early parenting. All needs of the pregnant woman and newborn are considered and, in addition, the intrapersonal and interpersonal needs of the family. Complex health problems such as the complications of pregnancy and child-birth, congenital anomalies and cardiorespiratory problems that put the individual "at risk" are considered. Emphasis is placed on the use of the nursing process, application of previously learned skills, communication skills, work organization and professional behaviours.

NURSING IIIB - "MENTAL HEALTH NURSING"
76.E40 and 76.E45

Nursing IIIB, "Mental Health Nursing", is a combined theory and clinical practice course. It focuses on the role of the nurse as a health team member in the provision of care related to the restoration of health for individuals with complex health problems. In this course, complex health problems are viewed as problematic behaviour patterns. The student examines and explains the components of the need for mental well-being and examines all aspects of the nurse-patient relationship. Through application of the nursing process and with the collaboration of other health team members, the student assists individuals with problematic behaviour patterns to adjust to or restore optimal levels of functioning.

NURSING IIIB - "AMBULATORY CARE NURSING"
76.E39 and 76.E44

NURSING IIIB, "Ambulatory Care Nursing" is a combined theory and clinical practice course. It focuses on the role of the nurse as a health team member in the provision of care related to restoration of health for handicapped individuals and their families. All needs are discussed and encompass commonly occurring chronic handicapping health problems. Selected interferences are studied in relation to need requirements for an optimal level of functioning, effects of influencing factors, nursing and other health team members assessments and interventions.

NURSING IIIC - "MEDICAL-SURGICAL NURSING"
76.E50 and 76.E55

Nursing IIIC, a combined theory, laboratory and clinical practice course, focuses on assisting individuals to restore and/or adjust to their optimal level of functioning as a result of interference with the basic needs. Complex health problems are studied in terms of assessment of the basic needs, the influencing factors, physiological alterations, psychosocial effects, diagnostic procedures, and appropriate therapies and nursing interventions.

LEVEL IV

INTEGRATION OF NURSING CARE

NURSING IV
76.H70 and 76.H75

A combined theory and clinical course integrating previously learned knowledge and skills and to further develop and understand skills in organization and judgement applied to a clinical setting. Emphasis will be placed upon group dynamics in the

work setting, legal implications and professional responsibilities. Career opportunities and changes in nursing education and practice will be discussed.

Concurrent theory and clinical practice will focus on the role of the nurse as a beginning nurse practitioner as a member of the health care team in planning and directing others in the provision of care for groups of individuals. The student will have experience in one nursing unit in an adult medical-surgical unit and will have experience with both day and evening shifts.

APPENDIX C

LETTERS

Mrs. Mary Whitehead,
15875 101 "A" Ave.,
Surrey, B.C., V3R 1K2.

5 Feb., 1979.

Dear:

I am a Registered Nurse and a graduate student at Simon Fraser University. In partial fulfillment of the requirements for the degree of Master of Arts (Education), I have chosen to study the perceived learning needs of the beginning graduate of the B.C.I.T. general nursing program.

In order to field-test the questionnaire to be used for data gathering, I have asked Mrs. Dunster for some names of 1978 graduates employed at Surrey Memorial Hospital who might be willing to assist me.

I propose to have a luncheon meeting at a mutually convenient time at which time I would ask you to fill out the proposed questionnaire in order to test for clarity and content of the questions. The problems you encounter regarding clarity and content will be discussed. Your opinions and suggestions will be utilized in revising the questionnaire for its final form.

Would you please telephone me at 588-9168 in order to finalize a date for our meeting and to discuss this proposal further.

Thank you for your cooperation.

Sincerely,

(Mrs.) Mary Whitehead

Mrs. M. Whitehead,
15875 101 "A" Ave.,
Surrey, B.C., V3R 1K2.

5 Feb., 1979.

B.C. Institute of Technology,
3700 Willingdon Ave.,
Burnaby, B.C.

Attn: Mrs. B. Kozier.

Dear Mrs. Kozier:

I was unaware, following our conversation in early December, that you also required a letter from me regarding my research proposal in order for you to give your written approval. It is with this purpose in mind that I am writing to you.

In partial fulfillment of the requirements for the degree of Master of Arts (Education) in the Faculty of Education, Simon Fraser University, I have chosen to study "The Perceived Learning Needs of the Beginning Graduates of the BCIT General Nursing Program".

As outlined in our earlier conversation, the sample for this study will be the July 1978 class and the March 1979 class. The methodology for this study includes the completion of a questionnaire by the participants.

Please be assured that all information received during the study will be kept confidential. Neither the graduate participating nor the employing agency will be identified.

Thank you for your cooperation.

Sincerely,

(Mrs.) Mary Whitehead

Mrs. M. Whitehead,
15875 - 101 "A" Ave.,
Surrey, B.C.
V3R 1K2

5 Feb., 1979.

B.C. Institute of Technology,
3700 Willingdon Ave.,
Burnaby, B.C.

Attn: Mr. J. MacKay

Dear Mr. MacKay:

I was unaware, following our conversation in early December, that you also required a letter from me regarding my research proposal in order for you to give me your written approval. It is with this purpose in mind that I am writing to you.

In partial fulfillment of the requirements for the degree of Master of Arts (Education) in the Faculty of Education, Simon Fraser University, I have chosen to study "The Perceived Learning Needs of the Beginning Graduates of the BCIT General Nursing Program".

As outlined in our earlier conversation, the sample for this study will be the July 1978 class and the March 1979 class. The methodology for this study includes the completion of a questionnaire by the participants.

Please be assured that all information received during the study will be kept confidential. Neither the graduate participating nor the employing agency will be identified.

Thank you for your cooperation.

Sincerely,

(Mrs.) Mary Whitehead

Mrs. Mary Whitehead,
15875 101 "A" Ave.,
Surrey, B.C., V3R 1K2.

15 Feb., 1979

B.C. Institute of Technology,
3700 Willingdon,
Burnaby, B.C.

Attn: Mrs. B. Kozier

Dear Mrs. Kozier:

Reference our telephone conversation of 7 February, 1979 in regard to my research proposal, I would appreciate:

(1) A one half hour period with the March 1979 class. I could discuss this with the quarter eight instructors to arrange a mutually convenient time.

(2) The names and addresses of the March 1979 class and the July 1978 class.

Thank you for your support.

Sincerely,

____

(Mrs.) Mary Whitehead

February 23, 1979

Mrs. Mary Whitehead
15875 101 "A" Avenue
Surrey, B.C.
V3R 1K2

Dear Mrs. Whitehead:

We received your letter of February 15, 1979 regarding your proposal. We would be pleased to assist you in the two ways you suggest. You should know, however, that we do not have the recent addresses of our graduates. Perhaps the R.N.A.B.C. would be a better source.

Best of luck with your project!

Sincerely,

Barbara B. Kozier
Department Head
General Nursing

BBK:bt
c.c. John MacKay

BIBLIOGRAPHY

Alberta Advanced Education and Manpower. The Report of the Alberta Task Force on Nursing Education. Alberta Advanced Education and Manpower, September 1975.

ARA Consultants Limited. A Review of the Two-Year Diploma Nursing Program In Colleges of Applied Arts and Technology in Ontario. Toronto: April 1978.

Allen, Moyra, Reidy, Mary. Learning to Nurse, The first five years of the Ryerson Nursing Program. Registered Nurses Association of Ontario, Toronto: 1971.

Allen, Virginia O. Community College Nursing Education. New York: John Wiley and Sons Inc., 1971.

Barras, D.M.A. Nursing Education in a College of Applied Arts and Technology: The Development, Implementation, and Evaluation of a Nursing Diploma Program at Humber College of Applied Arts and Technology. Rexdale, Ontario: February 1975.

Bevis, E.M. Curriculum Building in Nursing. A process. St. Louis: The C.V. Mosby Company, 1973.

Bloom, B.C., Hastings, J.T. and Madaus, G.F. Handbook of Formative and Summative Evaluation. New York: McGraw-Hill, 1971.

British Columbia Institute of Technology. Calendar 1977-78.

________., General Nursing Program Curriculum Report, October, 1977.

Boudreau, Thomas J. Report of the Committee on Nurse Practitioners. Report to the Department of National Health and Welfare, 1972.

Brown, Ester Lucille. Nursing for the Future. New York: Russell Sage Foundation, 1948.

________. Nursing Reconsidered, A Study of Change, Part II. Philadelphia: J.B. Lippincott Company, 1971.

Byrne, Marjorie L., and Thompson, Lida F. Key Concepts for Study and Practice of Nursing. St. Louis: The C.V. Mosby Company, 1972.

Canadian Hospital Association. Hospital Opinion Survey of Initial Job Performance of Graduates of Two and Three Year Nursing Education Programs, 1970. Canadian Hospital Association, February 1972.

Canadian Nurses Association. Submission to the Royal Commission on Health Services. Ottawa: The Association, 1962.

________. Roles, Functions and Educational Preparation for the Practice of Nursing. Ottawa: The Association, 1967.

________. The Leaf and The Lamp. Ottawa: The Association, 1968.

________. Countdown, 1977. Canadian Nursing Statistics. Ottawa: The Association, 1977.

Castonguay, T., Costello, C.G. The Evolution of a Two Year Experimental Nursing Program. Regina: Saskatchewan Registered Nurses Association, 1968.

Coslow, Florence. The Associate Degree Nursing Faculty. Philadelphia: F.A. Davis Company, 1972.

Deloughery, Grace L. History and Trends of Professional Nursing. St. Louis: The C.V. Mosby Company, 1977.

Dennison, John D. et al. The Impact of Community Colleges. Vancouver: B.C. Research, 1975.

Dennison, John D., Jones, Gordon. Nursing Programs (R.N.) (Student Opinions). A Three Semester Summary. Vancouver: Vancouver Community College, June 1977.

Dolan, Josephine A. Nursing in Society: A Historical Perspective, thirteenth edition. Philadelphia: Saunders, 1973.

Downie, N.M., Starry, A.R. Descriptive and Inferential Statistics. New York: Harper and Rorn Publishers, 1977.

Field, Peggy Anne. Follow-Up Study of Graduates from the Four Year B.Sc. Programme in Nursing, University of Alberta. University of Alberta: Faculty of Nursing, May 1978.

Griffin, Gerald Joseph, Griffin, Joanne King. Jensen's History and Trends of Professional Nursing, sixth edition. St. Louis: The C.V. Mosby Company, 1969.

Henderson, Virginia. The Nature of Nursing. New York: Collier MacMillan Limited, 1966.

Howard, Francis M. The Perceived Learning Needs of Graduates of a Two-Year Diploma Program in Nursing. Unpublished Master's Thesis, University of Western Ontario, 1971.

Innis, Mary Q. Nursing Education in a Changing Society. Toronto and Buffalo: The University of Toronto Press, 1970.

Jewett, Pauline. A Structure of the Canadian Nurses Association. Ottawa: Canadian Nurses Association, 1952.

Knopf, Lucille. From a Student to R.N. A Report of the Nurse Career Pattern Study. Washington, D.C.: U.S. Government Printing Office. DHEW Publication No. (NIH) 72-130, 1972.

________. RN's One and Five Years After Graduation. New York: National League for Nursing. Publication No. 19-1535, 1975.

Kramer, Marlene. Reality Shock. St. Louis: The C.V. Mosby Company, 1974.

________. "The New Graduate Speaks Again", American Journal of Nursing, Vol. 69, No. 9 (September 1969), 1903-1907.

Lalonde, Marc. A New Perspective on the Health of Canadians. Ottawa: Government of Canada, 1974.

LaSor, Betsy, Elliott, Ruth M. Issues in Canadian Nursing. Scarborough: Prentice Hall of Canada Limited, 1977.

Lord, A.R. Report of the Evaluation of the Metropolitan School of Nursing, Windsor, Ontario. Ottawa: Canadian Nurses Association, 1952.

MacLeod, Ella and Sister Catherine Peter. A Study of the Needs of Graduates from Two-Year Diploma Nursing Programs in Canada. Master's Thesis. Boston University, Boston, 1968.

McLean, D. Catherine and Rex A. Lucas. Nurses Come Lately. The First Five Years of the Quo Vadis School of Nursing. Etobicoke: The Quo Vadis School of Nursing, 1970.

Montag, Mildred L. Education of Nursing Technicians. New York: John Wiley and Sons, 1951.

________. Community College Education for Nursing. New York: McGraw-Hill Book Company, 1959.

________. Evaluation of Graduates of Associate Degree Nursing Programs. New York: Teacher's College Press, 1972.

Mussallem, Helen K. Spotlight on Nursing Education. The Report of the Pilot Project for the Evaluation of Schools of Nursing in Canada. Ottawa: The Association, 1960.

________. A Path to Quality. Ottawa: The Association, 1964.

________. Nursing Education in Canada. Ottawa: Queen's Printer, 1965.

National League for Nursing. Response to Changing Needs. New York: National League for Nursing, 1961. Publication No. 14-866.

________. Developing Nursing Programs in Institutions of Higher Education, 1974. New York: National League for Nursing, 1974. Publication No. 15-1528.

Notter, Lucille. Open Curriculum Conference III. New York: National League for Nursing, 1974. Publication No. 19-1586.

Pinkham, Judith Mary. Student's Perceptions of Clinical Experience. Master's Thesis. University of British Columbia, Vancouver, 1976.

Phillips, Charles E. The Development of Education in Canada. Toronto: W.J. Gage and Company, 1957.

Registered Nurses Association of British Columbia. Report of R.N.A.B.C./B.C.I.T. Joint Committee on Nursing Education. Vancouver, R.N.A.B.C., June 1966.

________. Nursing Education in British Columbia. A Discussion Paper. Vancouver: R.N.A.B.C., June 1976.

________. Becoming a Nurse. Information on Basic Nursing Education Programs in British Columbia. Vancouver: R.N.A.B.C., 1977.

________. Position Paper on Nursing. Vancouver, R.N.A.B.C., February 1977.

________. Criteria Policies and Procedures for Approval of Programs Preparatory to Nurse Registration in British Columbia. Vancouver: R.N.A.B.C., June 1977.

________. Roles and Functions. Vancouver, R.N.A.B.C., November 18, 1977.

________. Competencies and Skills Required for Nurse Registration For a Graduate of a Basic Program. Interim Working Document. Vancouver: R.N.A.B.C., March 1978.

________. Essential Manual Skills for a New Graduate. A report of the steering committee to identify essential manual skills. Vancouver: R.N.A.B.C., June 1978.

Robson, R.A.H. Sociological Factors Affecting Recruitment into the Nursing Profession. Ottawa: Queen's Printer, 1967.

Rogers, M. Educational Revolution in Nursing. New York: The Macmillan Company, 1961.

Royal Commission on Health Services. Report of the Royal Commission on Health Services, Volume 1. Ottawa, 1964.

Russell, Edith Kathleen. The Report of a Study in Nursing Education in New Brunswick. Frederickton: The University of New Brunswick Press, 1956.

Schmitt, Louise M. Report of the Status of Basic Nursing Education Programs in Saskatchewan. Regina: Saskatchewan Registered Nurses Association, 1957.

Schumacher, E. Marguerite. Biographical Sketch of Nursing Student, Red Deer College Nursing Program. Red Deer, June 1971.

Steed, Margaret. "Trends in Diploma Nurse Education", The Canadian Nurse, February 1968.

_______. An Evaluation of Students and Graduates of College Nursing Programs in the Province of Alberta. Alberta: Department of Advance Education for the Committee on Nursing Education, February, 1974.

Stewart, Isabel. The Education of Nurses. New York: The Macmillan Company, 1945.

Stewart, Isabel and Austin, Anne L. A History of Nursing. New York: G.P. Putnam's Sons, 1962.

Street, Margaret M. Watch - fires on the mountains: the life and writings of Ethel Johns. Toronto and Buffalo: University of Toronto Press, 1973.

_______. Canadian Nursing in Perspective: Past, Present and Future. 50th Anniversary of the University of Alberta Hospital School of Nursing. Edmonton, November 15, 1974.

Story, D.K. Career Mobility. St. Louis: The C.V. Mosby Company, 1974.

Treece, Eleanor and Treece, James Jr. Elements of Research in Nursing. St. Louis: The C.V. Mosby Company, 1973.

Turabian, Kate L. A Manual for Writers, fourth edition. Chicago: The University of Chicago Press, 1973.

Vancouver City College. Calendar 1977-78.

Wallace, N. Stewart. Report on the Experiment in Nursing Education of Atkinson School of Nursing - The Toronto Western Hospital, 1950-1955. Toronto: University of Toronto Press, 1955.

Weir, George M. Survey of Nursing Education in Canada. Toronto: The University of Toronto Press, 1932.

White, Dorothy T. Abilities Needed by Teachers of Nursing in Community Colleges. New York: National League for Nursing, 1961. Publication No. 14-866.

Williamson, Janet A. Current Perspectives in Nursing Education. The Changing Scene. St. Louis: The C.V. Mosby Company, 1976.

World Health Organization. Higher Education in Nursing. Report on a symposium convened by the regional office for Europe of World Health Organization, regional office for Europe. Copenhagen: W.H.O., 1973.

Zeitz, Ann N., et al. Associate Degree Nursing. St. Louis: The C.V. Mosby Company, 1969.