

FACILITATING THE INTEGRATION OF THEORY, PRACTICE AND RESEARCH IN NURSING EDUCATION: A LOOK AT ONE GRADUATE PROGRAM

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If the integration of nursing theory, practice and research is to be a reality, it is important that it be fostered in nursing education. This paper explores how the Graduate Department of Nursing, University of Toronto, which is committed to this integration, attempts to facilitate it in its Master's Program.

THE MASTER'S PROGRAM

The Master's Program in the Department of Nursing is built on the philosophy of the Faculty and specific beliefs regarding graduate education. The "Goals of Graduate Education" and "Expectations of the Graduate of the Master's Program" reflect the philosophy of the program, and indicate the anticipated integration of theory, practice and research. (See appended Figure 1). The program enables students to develop depth of knowledge and special expertise in an area of clinical practice and to contribute to the refinement of knowledge through research.

On application to the Graduate Department of Nursing, each candidate must declare the intended area of clinical specialization. The available areas of clinical specialization in nursing are medical-surgical, mental-health psychiatric, parent-child, gerontology and community health. On admission, programs of study are individually planned by the students and their advisers on the basis of the students' interests and in relation to meeting the goals of the Program and the requirements for the degree. Each student is required to complete an Advanced Nursing Course (clinical and theory) in the selected area of clinical specialization, Research Methodology in Nursing, a minimum of two full graduate courses (selected by the student) and a thesis on her research in a nursing problem.

Each student has an adviser (usually a staff member who teaches in the clinical specialty area) who assists the student in choosing electives and in planning clinical experiences which support the student's area of interest. Appointments with the adviser are made on request as well as being scheduled two or three times monthly. These individual conferences allow for suggestions which may broaden the student's approach, for example calling attention to bibliographies which may

foster learning in research and the understanding of theories underlying the student's specific clinical interest, or suggesting consideration of a variety of innovative nursing interventions. Through these discussions, students are helped in developing researchable questions as well as in gaining new perspectives.

The Advanced Nursing Courses

The advanced nursing course is selected according to the student's area of clinical specialization. The purposes and objectives of each of the advanced nursing courses indicate the potential for the integration of theory, research and practice. For example, one of the objectives of the Advanced Community Health Nursing Courses states: "The student is expected to analyze nursing care given to families based on nursing process and related to theories and research."

The advanced nursing courses have two main components, core and clinical. "Core" is the name given in this graduate program to the conceptual framework developed by the faculty (Arpin and Parker, 1976). It is built around three elements: the focus — Man; the goal — Health; and the process — Nursing Acts. Key concepts describing the characteristics of each of the elements have been developed. The key concepts which characterize Nursing Acts are caring and facilitating, based on the belief that these behaviours influence Man, the recipient of care, toward the goal of Health.

The core classes provide a forum for examining concepts and theories in terms of their potential for shedding light on clinical practice. Core assignments are designed to provide students with opportunities to analyze nursing and other theories for their internal and external validity.

The clinical component in the advanced nursing courses is planned to include concurrent clinical practice one day per week during the academic year and one month at the close of the spring term. This clinical practice is arranged in the area of the student's interest and provides opportunities to test concepts, theories, and research while analyzing methods to provide and improve the quality of care. Seminars in the clinical specialty areas are aids to increase knowledge and integrate both components.

Electives

Students may choose their elective course from any graduate department in the University, with the approval of the professor teaching the course. They are encouraged by faculty advisers to choose electives to support the clinical area and the problem selected

for investigation. In a review of records of students enrolled in the Graduate Program, Department of Nursing, 1970-77, it was noted that the 61 students who had completed all degree requirements had enrolled in 108 courses in 12 graduate departments other than Nursing (Cunningham, 1979, p. 9). Departments where students frequently selected electives included Educational Theory, Community Health, Physiology, Sociology, Social Work and Pharmacology.

Research Methodology in Nursing

This required course assists the student in gaining knowledge of the research process, as well as in defining and planning the investigation of the selected nursing problem. All parts of the research process — the description of the problem, the review of the literature, the conceptual framework, the design, data collection and analysis, as well as writing the report — contribute to the students' integration of theory, research and practice.

The Thesis

Perhaps the investigation of a nursing problem and writing of the report provide the greatest stimulation to the student to integrate theory, research and practice. The "Guidelines for Master's Research and Theses", states that the purpose of this research is to provide a learning experience in which the student uses clinical experience and theoretical knowledge in the investigation of a nursing problem. The intent is to stimulate students to gain experience in conducting and reporting research that will extend nursing knowledge and lead to the improvement of nursing care. The research requirement is also directed toward increasing the student's ability to evaluate research done by others.

Each student selects a research committee of a minimum of three members who assist her in the development of her proposal and protocol, as well as during the entire project. The student is also required to defend her research at a meeting with her committee and an appointed additional professor. The theses guidelines describe the purpose of this defense as follows: "The oral defense provides an opportunity for the committee members to consider the extent to which the candidate has met the expectations of the program as evidenced in the thesis. In her presentation, the candidate indicates the depth of knowledge she has attained in the field under study, her competency and understanding of the research process, the nursing implications of the findings of her study, and her scholarly attributes of intellectual honesty, excitement and curiosity."

It is anticipated that the student's research assists her to realize the importance of research to both theory and practice. As Stevens (1979, p. 195) says: "Theory, then, invents or discovers explanations of a

phenomenon: research seeks to warrant these explanations. Theory provides the image (or world) to which research applies: research confirms that the world operates (or fails to operate) as the theory predicts." Since the phenomenon being investigated or explained is a nursing problem (or concepts or principles related to this nursing problem) the relation of nursing theory, research and practice is clear.

STUDENT A'S PROGRAM OF STUDY

In exploring how students' programs are planned and carried out to facilitate the integration of theory, research, and practice, one student (referred to as Student A) is used as an example. Student A's experience and interest led her to select Community Health Nursing as her area of clinical specialization. Her specific interest was the health care of Canadian Indians in the urban setting. The faculty adviser sought ways to assist her in gaining knowledge in this area in the Advanced Community Health Nursing Course, in the selection of elective course and in planning for her thesis.

Advanced Community Health Nursing Course

Student A attended core classes with the students enrolled in the Master's Program. Her clinical practice provided opportunities for her to apply and test core concepts, theories and research findings while analyzing methods to provide high quality nursing care. Evidence of the integration of theory, research and practice was apparent in the course assignments. Course assignments included seminar presentations as well as written papers: two major papers and six brief papers.

Arrangements were made for Student A to provide community health nursing service to an Indian family comprising a pregnant woman, her common law husband and two-year-old child, who had moved from an Indian Reserve to the city several times. The nurse in the Official Health Agency was concerned about the possibility of both child abuse and alcohol abuse. During the month of May, the student worked at the Alcoholic Drug Research Centre seeking to increase her family therapy skills as well as her knowledge about individuals with the problems of alcohol abuse. When possible, she selected Indian families to work with.

Seminar presentations

To facilitate the integration of theory and practice, each student is required to lead a seminar relating one of the key factors of core to practice. The core seminars led student A to explore man's interaction with his environment, and to relate this interaction to health. Student A very ably led a seminar relating the concept of health and its sub-

concepts to Community Health Nursing Practice, using examples from the care of the Indian family. In this seminar, health and belief models and a variety of definitions of health (related to attitudes, beliefs and culture) were analyzed; discussion was based on the review of current research and theories of change, teaching, learning and adaptation as well as the theoretical framework of the Faculty of Nursing. At the conclusion of this seminar, the community health students identified additional subconcepts and suggestions were made to consider these additions as a development of the faculty conceptual framework.

Each student is also required to present a clinical seminar. The directives states, "This seminar should be based on a framework of concepts related to clinical practice and include advanced clinical knowledge. The theoretical framework, clinical practice and research should be integrated in each seminar." The seminars given by faculty are based on the same criteria and it is hoped they set a model for students to follow. While no grade is given for the seminars, each student completes an evaluation form, which includes the plan, content, and conduct of the seminar as well as how theory, research and practice were integrated.

The Indian family cared for by Student A was frequently upset by problems related to urbanization and alcoholism. Her clinical seminar based on this situation was entitled: "Stress — A concept relevant to nursing practice and research." The student introduced the seminar by initiating a review and discussion of stress theories; other theories ("system" and "change") as well as current research were also included. The group explored approaches to the stressful situations in the family. It was noted that a family was considered an open system (Fawcett, 1975), capable of change. The seminar participants analyzed the role of the nurse in the therapeutic management of stress, relating the approach to change theories as well as noting the reciprocal interaction of man and his environment. Assessments of the family and plans for intervention were based on models presented by Tapia (1972) and Meister (1977) as well as the developmental approach described by Duval (1971).

Examples of two clinical seminars led by other students in the same group illustrate how these seminars, while specifically related to the presenting student's clinical experience, can be generalized to assist with the practice of other students. One was entitled, "A Study of the Process of Adaptation." The seminar plan directed the students to examine Roy's Model of Adaptation (1970) in the light of man as an open system. This model and the seminar discussions were related to the clinical practice of the presenting student but were very applicable

to Student A's practice since the Indian family was having difficulty adapting to urban life. The clinical seminar presented by another student entitled "Compliance — Is it a goal of Nursing?" initiated much discussion related to human rights and factors affecting "compliance", especially with minority groups and those with cultural and ethical differences. The discussion was very pertinent to Student A's family. Theories of teaching-learning as well as ethical issues and related clinical research were reviewed. Knowledge from the various electives taken by students is shared and contributes to the depth of discussions in all seminars. Students learn to examine the possibilities within the ideas expressed, and to respond rather than react to critical questioning.

In planning an appropriate sequence of seminars, the students and the faculty member responsible for the course discuss the linkage of concepts to identify suitable sequence or continuity to enhance learning.

Additionally students in the Advanced Community Health Nursing Course meet approximately twice a month. These group discussions are less formal than seminars but a focus or topic is defined, as this appears to increase the depth and value of the discussions related to clinical practice.

Written assignments

The major papers provide opportunities for comprehensive original discussion of topics related to the clinical work. The course outline states that these papers provide a vehicle to analyze the relationship of research, theory and practice.

The major paper submitted by Student A at the end of the first term was entitled "A Study of the Concept 'Stress'." In it the student reviewed the theories related to both "stress" and "adaptation". She described the implications of these theories for nursing practice, and then specifically for her practice in the care of the Indian family. This discussion led to identification of the implications for research. The student viewed stress and adaptation as intertwined, reporting that, "both had physiological and psychological responses or changes in the individual." She stated, "An examination of their cyclic relationship provides clues for nursing diagnoses and intervention". Student A also used Chrisman and Riehl's Stress Reaction Index (1974), finding it useful in assessing the effect of stress on the individual. The student applied Neuman's Health Care Systems Model (1972), quoting Neuman, who says it "provides a frame of reference for the practice of nursing based on processes related to universal stressors, and reconstruction factors following a reaction" (p. 265). This comprehensive paper, clearly integrating theory, research and practice, was basic to the development of Student A's thesis later in the two-year program.

Student A's second major paper reviewed a variety of approaches to the treatment of alcoholism by other disciplines. Then, based on the conceptual framework developed by the Faculty, the student further explored her interest in man's reciprocal interaction with his environment. The related nursing acts were studied in greater depth with the assistance of Neuman's model (1972); this model helped the student to identify stressors and possible lines of resistance and defense. The student sought ways to decrease the former and increase the latter.

The guidelines for writing the "six brief papers" state: "Each student will describe planned nursing intervention based on a critical analysis of an event or issue in clinical work that stimulated learning." Students frequently report the testing of concepts, theories, and research in their concurrent clinical work. Two of the papers submitted by Student A were entitled "An Analysis of Culture in Determining Patterns of Family Living", and "Analysis of the Family Coping Skills". The latter paper analyzed the value of the tool, "Family Coping Estimate" (Freeman, 1970, p. 60). Both these papers contributed to the development of a nursing care plan for the Indian family and also provided some indication of the value of nursing intervention. The papers stimulated the student to write another small paper entitled "Family Therapy by Public Health Nurses", where she analyzed various approaches and interventions with the family. It was felt these papers helped the student plan nursing care based on theory and research findings, and contributed to formalizing the research questions basic to her thesis.

Electives

Student A selected a course from Anthropology, "Canadian Indian and Inuit Change"; and two half courses, one from Educational Theory, "Small Group Experience and Theory", and one half course from Community Health, "Health Attitudes and Behaviour". These courses all related to the student's clinical area of interest and her concern for improving the health care of Canadian native people. This selection of courses outside the Department of Nursing seemed wise, for as Hoskins (1979, p. 180) states, "Knowledge of the behavioral and biological sciences is often needed to supplement nursing knowledge in the theory building process. Nurse researchers need knowledge both from within and outside the discipline of nursing to develop nursing theory. Findings from other disciplines may be considered relevant to a particular aspect of nursing practice which requires further clarification. The means of clarification is the research process generating, sorting, testing and relating theory and fact."

The course taken in the Anthropology Department assisted the student in exploring cultural aspects and their implications for nursing care and research. The other two elective courses, "Small Group Experience and Theory", and, "Health Attitudes and Behavior" helped the student analyze her nursing interventions with individuals and groups of Indians.

Research Methodology in Nursing

Student A examined many research reports related to Canadian Indians while she identified the problem that she wished to investigate. The seven course assignments on the various phases of the research process (e.g., the problem, sample selection, data analysis etc.) applied to the student's selected area of study led her through the research process, helping her to limit her problem, define the sample selection criteria, develop the instrument, design the investigation and plan the report.

This course, with its emphasis on clinical research, assists the student in relating research and improved quality of nursing care. As Treece and Treece (1973, p. 17) state, "New methods and techniques in patient care must be developed as nursing responsibilities change and expand. Nursing research must provide the foundation for these changes."

Thesis

Student A's thesis was entitled "Acculturation Stress and Alcohol Usage among Canadian Indians in Toronto." The conceptual model was adapted from the Neuman Health Care Systems Model (1972). Members of the student's thesis committee include professors teaching research, community health nursing and anthropology. The student concluded her thesis with the statement, "The current investigation can be considered as a pilot study which has not only taken the initial step to identify specific acculturation stressors among Canadian Indians in Toronto, and their use of alcohol as one reaction to stress, but has also suggested directions for nursing practice and further research."

The thesis and oral were based on the content, assignments, elective and research courses in Student A's program, with evidence to prove that the objectives of the program had been achieved. The responses to questions provided the student with an opportunity to describe the nursing knowledge gained from the integration of theory, research and practice related to the health care of Indian people as well as the synthesis of her total program.

CONCLUSION

Examples of student programs might have been selected in any of the clinical specialty areas. Student A's program was chosen as it was familiar to the author. It is anticipated that the interested reader will be able to visualize similar programs in other nursing specialty areas; and may suggest additional innovative ways to facilitate the integration of theory, research and practice.

For faculty advisers, it is interesting and stimulating to note how students' care-giving undergoes changes in the course of the program. Toward the end of the program, students consciously base their care-plan on their knowledge of theories and research; earlier, care-giving is frequently built on basic knowledge and experience; although recognition of the underlying theories and research may have been evident in their post-care evaluations.

The integration of theory, research and practice can be facilitated in nursing education by the philosophy and design of programs, and fostered by faculty who are committed to such integration. In particular, student advisers can assist each student in planning and completing a program of study which continuously encourages the interaction of these three integral components of nursing. The integration of theory, research and practice can assure the evolution of nursing science as well as the improvement of nursing care.

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APPENDIX 1

Beliefs Regarding Graduate Education

1. Graduate education embodies specialization and implicit, in such specialization, is depth of knowledge in a selected area of nursing and creative professional activity in the application of this knowledge.
2. Graduate education involves the acquisition and analysis of principles and theories that contribute to an understanding of nursing.
3. Graduate education attempts to foster intellectual excitement, curiosity and honesty which leads to scientific inquiry and underlies professional responsibility.

Expectations of the Graduate of the Master's Program

1. Has an educational base with depth of knowledge in a selected area of nursing which enables her to assume leadership in a variety of roles.
2. Has special expertise in the practice of a selected area of nursing.
3. Contributes to the refinement of nursing knowledge through systematic research and inquiry.
4. Contributes to innovations in health care by discriminative use of research findings.
5. Facilitates innovative approaches to health care by collaboration with other disciplines.
6. Influences the future direction of nursing by assuming leadership in the profession.

Goals of Graduate Education

1. The preservation, differentiation, refinement and extension (discovery) of knowledge of nursing:
 - a) knowledge of the forces that enhance or undermine man and his health.
 - b) knowledge of nursing's actual and potential contribution to the protection and enhancement of life and well-being.
2. The use of nursing knowledge as a positive force in the improvement of the human condition.

Figure 1:

Beliefs Regarding Graduate Education, Goals of Graduate Education, Expectations of the Graduate of the Master's Program, 1979.

RÉSUMÉ

Faciliter l'intégration de la théorie, de la pratique et de la recherche dans l'enseignement des sciences infirmières: examen d'un programme de 2e cycle

Dans le présent article, les auteurs analysent comment le département d'études supérieures en sciences infirmières de l'université de Toronto tente de favoriser l'intégration de la théorie, de la pratique et de la recherche en sciences infirmières chez les étudiants de 2e cycle. Les grandes lignes du programme, de même que le cours d'un étudiant illustrent comment on arrive à faciliter cette intégration.

Les auteurs révèlent que l'intégration de la théorie, de la recherche et de la pratique dans l'enseignement des sciences infirmières peut être facilitée par l'orientation et la conception des programmes et favorisée par des professeurs qui croient à sa nécessité. En particulier, chaque conseiller pédagogique, puisant dans ses vastes connaissances spécialisées et dans les ressources de l'université est en mesure de guider l'étudiant dans l'élaboration et la réalisation d'un programme qui favorise continuellement l'interaction de ces trois aspects des études infirmières. L'intégration de la théorie, de la recherche et de la pratique peut assurer l'évolution de la science infirmière ainsi que l'amélioration des soins infirmiers.