



NURSING PAPERS ***PERSPECTIVES EN NURSING***

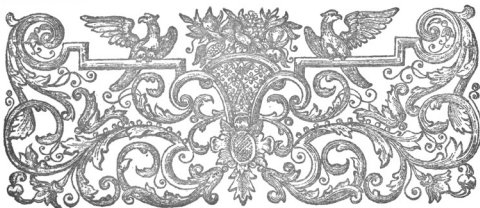
THE CONTINUING CHALLENGE FOR NURSING

CLASSROOM THEORY AND CLINICAL
PRACTICE

A TEACHING MODULE FOR NURSING
STUDENTS ON DRUG USE INFORMATION

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NURSING PAPERS PERSPECTIVES EN NURSING

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EDITORIAL

DALHOUSIE UNIVERSITY SCHOOL OF NURSING

RESEARCH AND DEVELOPMENT FUND

Nursing Research is the only way to build the scientific knowledge base for our profession, the best way to improve the quality of care we give our clients, and the accepted way to solve problems or determine the best alternatives for nursing care plans. Why then do so few nurses undertake research? One of the answers, and indeed the most frequent one heard these days, is the lack of funding. There just doesn't seem to be the interest and willingness to support our research efforts — at least not by the major agencies and foundations and governments who offer extensive research support to our associates.

What does one do when rejection after rejection appears to be the order of the day? There are two alternatives — either give up or use one's own initiative.

Fortunately for nursing and for the School, a faculty member at Dalhousie University School of Nursing used her initiative, and with a few colleagues developed the idea of launching a campaign to raise our own funds. With the consent and "blessing" of the University, a Board of Directors was appointed. The Research and Development Fund was created, and a full fledged campaign was launched on April 23, 1980. Our target is \$150,000.

The Fund has been generated to

- a) contribute to the support of investigations in nursing practice, service, and education.
- b) provide for the dissemination and discussion of research findings.
- c) offer a forum for the debate of issues important to nursing.
- d) promote the development of excellence in the practice of nursing.
- e) publicize the need for financial support for expansion of nursing research.

Our Campaign Chairman is Mrs. Beverley McInnes, a graduate of the Montreal General Hospital School of Nursing. She has enthusiastically established her team of Division Managers and Captains who are in the process of selecting canvassers. Their enthusiasm is so infectious that we have been able to attract key personalities to assist us — among them Marilyn MacDonald, Managing Editor of *Atlantic Insight* and well known C.B.C. commentator, as our Public Relations person.

We knew that we had to demonstrate two things to the public: first, that our own profession individually and collectively supported us; and second, that our research would influence the care of people in Nova Scotia. Both tasks were easy to do. The Registered Nurses Association of Nova Scotia became our first major donor with a cheque for \$2,500.00, and even though the canvas has not actually started many nurses have been subscribers.

Our display of research presently underway centered on such things as finding out why long hospital stays affect young children negatively, dealing with the emotions of those badly burned, learning about your heart, and how well are the elderly. This caught the interest of over 200 guests invited to the reception on April 23rd when our plans were unveiled. Chemists, doctors, and pharmacists, among others, seemed suddenly to understand that nursing research was not test tubes and chemicals, or discovering new cures for old illnesses, but rather a way to develop care of people through critical thinking.

Our actual canvas will begin September 24th. We will be seeking support from all those who believe in nursing and its relationship to the quality of care. We also believe that in demonstrating our willingness to help ourselves, those who hold the "purse" for research will be more willing to listen to our request. In fact, our Minister of Health, the Honorable Dr. Sheehy, has already assured us that his door will open more readily because of our efforts.

I believe this fund-raising campaign — the first of its kind — marks a historic moment in the evolution of Canadian nursing. The task is not a small one, but the positive response to our call for help more than compensates — in fact is reward in itself.

MARGARET L. BRADLEY, B.N., R.N.
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Dalhousie University, Halifax
August 1980

EDITORIAL

ECOLE DE SCIENCES INFIRMIERES DE L'UNIVERSITE DALHOUSIE FONDS DE RECHERCHE ET DE DEVELOPPEMENT

Les recherches menées en sciences infirmières constituent l'unique moyen de développer une base de connaissances scientifiques pour notre profession ; c'est également la meilleure façon d'améliorer la qualité des soins que nous prodiguons à nos bénéficiaires et le moyen admis de résoudre certains problèmes ou de trouver les meilleures solutions qui soient dans les plans de soins infirmiers. Pourquoi alors un si petit nombre d'infirmières se consacrent-elles à la recherche et par le fait même en mènent si peu ? La raison la plus fréquemment invoquée de nos jours est la pénurie de fonds. Comparativement aux recherches conduites par nos confrères, il apparaît que nos propres recherches n'éveillent ni le même intérêt, ni le même souci de collaboration de la part des principaux organismes, fondations et gouvernements subventionnaires.

Que fait-on lorsque le rejet répété de ses demandes semble être de mise ? Il existe deux solutions : soit on abandonne, soit on prend certaines mesures.

Fort heureusement pour les sciences infirmières et pour l'école, l'un des professeurs de l'école de sciences infirmières de l'Université Dalhousie a fait preuve d'esprit d'initiative et avec l'aide de quelques collègues, a décidé de lancer une campagne en vue de recueillir ses propres fonds. Avec l'assentiment et la "bénédiction" de l'université, on a donc nommé un conseil d'administration. Le fonds de recherche et de développement a ainsi vu le jour et une campagne en bonne et due forme a été lancée le 23 avril 1980, avec l'objectif de recueillir \$150,000.

Ce fonds a été instauré :

- a) pour contribuer au financement d'études menées sur l'exercice clinique, l'administration des soins infirmiers et l'enseignement des sciences infirmières ;
- b) pour diffuser les résultats de nos recherches et en discuter ;
- c) pour offrir une tribune où débattre des questions d'importance en sciences infirmières ;
- d) pour inciter à l'excellence dans l'exercice de la profession ;
- e) pour rendre public le besoin d'appui financier pour favoriser le développement de la recherche en sciences infirmières.

La présidente de cette campagne n'est autre que Mme. Beverley McInnes, diplômée de l'école de sciences infirmières de l'Hôpital

Général de Montréal. C'est dans l'enthousiasme général qu'elle a constitué son équipe de "chefs et de capitaines de division" qui procèdent actuellement au choix de leurs agents de souscription. Leur enthousiasme attire des personnes-clé: parmi celles-ci, mentionnons Marilyn MacDonald, rédactrice en chef de Atlantic Insight, qui sera notre agent de relation publiques.

Nous savions que nous avions deux choses à prouver au public: d'abord, que notre profession nous soutenait tant à l'échelon individuel que collectif; ensuite, que nos recherches profiteraient aux habitants de la Nouvelle-Ecosse. La Registered Nurses Association of Nova Scotia est devenue notre premier bienfaiteur important avec un don de \$2,500., et même si la souscription n'a pas réellement commencé, plusieurs infirmières y ont déjà contribué.

Nous avons axé l'exposé de nos recherches en cours sur les sujets suivants: pourquoi de longs séjours à l'hôpital ont-ils un effet néfaste sur les jeunes enfants, comment faire face aux émotions des grands brûlés; que sait-on de son coeur; et comment se portent les gens âgés. Cela a suscité l'enthousiasme des quelque 200 personnes invitées à la réception du 23 avril lors de laquelle nous avons dévoilé nos plans. Des chimistes, des médecins et des pharmaciens entre autres, ont semblé d'être soudainement rendu compte que nos recherches n'avaient pas trait aux éprouvettes, ou à la découverte de nouveaux remèdes pour d'anciennes maladies, mais au contraire à l'élaboration de nouvelles méthodes de soins basées sur une réflexion critique.

Notre souscription débutera le 24 septembre. Nous sollicitons l'appui de tous ceux qui ont foi dans les sciences infirmières et dans leurs rapports avec la qualité des soins prodigués aux bénéficiaires. Nous espérons qu'en manifestant ainsi notre volonté de nous aider nous-mêmes, ceux qui détiennent les cordons de la bourse en matière de recherche prêteront une oreille plus attentive à nos sollicitations. Le ministre de la Santé de notre province, docteur Sheehy, nous a déjà annoncé que ses portes nous seraient plus grandement ouvertes grâce aux efforts que nous déployons aujourd'hui.

Nous croyons que la mise sur pied d'une telle campagne de souscription contribue à forger l'histoire des sciences infirmières au Canada. C'est la première campagne de ce genre. Ce n'est pas une mince tâche mais les résultats qu'elle produit stimulent déjà le moral de façon spectaculaire.

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Août 1980

THE CONTINUING CHALLENGE FOR NURSING*

JOAN M. GILCHRIST
Director, School of Nursing
McGill University

John Gardner wrote a decade ago:

Institutions have been caught in the savage crossfire between uncritical lovers and unloving critics! On the one side, those who loved their institutions tended to smother them in an embrace of death, loving their rigidities more than their promise and shielding them from life-giving criticism. On the other side, there arose a breed of critics without love, skilled in demolition, but untutored in the arts by which human institutions are nurtured and strengthened and made to flourish. Where human institutions are concerned, love without criticism brings stagnation; and criticism without love brings destruction. (Gardner, 1970).

Today I consider myself a loving critic of nursing and nursing education as we explore and expose some of the issues and dilemmas which present a continuing challenge for nursing. Since special sessions relating to baccalaureate, masters and doctoral preparation will be held, my remarks shall be confined to what I believe to be a few important broad areas. The first of these areas could be called "the situation in which universities in Canada find themselves". We are an association of university schools and the university as an institution must be a major concern. We must be loving critics of this institution. All universities are, of course, not the same. Yet there is an amazing number of facets of university existence, survival, and operation which are always relevant to a greater or lesser degree.

It is very tempting to make this whole talk a reflection of my recent experiences as a member of Senate of my own university. I dare say the exposé would sound familiar to many of you. In the vernacular, nursing like other disciplines in the university is taking its lumps, but the good part is that nursing is taking initiatives — important and exciting ones — in advance of many other professions or in concert with them. Nursing education will continue to be the key to nursing of the future, as it is today, and our methods, our technology must be in the forefront.

Briefly, what are universities like as they enter this new decade?

* Paper presented to the Canadian Association of University Schools of Nursing, Annual Meeting, Montreal, June, 1980.

Two decades ago a university president said :

A university is by definition a place of free inquiry. It is not a government bureau, nor an industrial corporation, nor a church. Its role in society postulates questions, criticism, controversy, debate, and doubt in all matters, social as well as scientific. The university embraces and supports the society in which it operates but it knows no established doctrines, accepts no ordained patterns of behaviour, acknowledges no truth as given. Were it otherwise, the university would be unworthy of the role which our society has assigned it. (Litchfield, 1961)

The most long established institutions in our country have been subjected to powerful currents of change for these past two decades, with an escalation of these currents becoming more powerful and more visible with each passing year. Yet those fundamental postulates spoken in 1961 remain untarnished. Nevertheless, rapidly evolving social, political and demographic patterns have increased the need for re-examination of every aspect of the university both in its role as an institution of higher learning and as one link in a network of educational institutions. Here are a few examples of recent direct change.

In many universities there have been changes in immigration and tuition fee requirements for non-Canadians, provincial laws such as the Quebec law governing language of instruction in primary and secondary schools and language requirements of professional practice, and all of this with a concomitant drop in birth rate. Decreasing enrolment, inflation, government austerity and changes in public perception of the value of university education will bring about continuing erosion of the real financial resources available to the university. These factors, combined with changes in the character of the student body and continuing fluctuation in the demand for various disciplines, make it imperative to plan carefully for the future.

Problems created by budget restrictions or financial shortfall are being studied universally. What are the responses or outcomes? In some areas the push is to develop legislative or regulative measures and incentives to increase the rate of university attendance, while in others, plans revolve around preparing for a smaller university. I dare say both can operate in tandem to mitigate the effects of a potentially smaller pool of applicants. In Quebec, universities are hoping that a focus upon the promotion of university studies will take cognizance of the community's social and cultural objectives, in addition to the strictly financial ones. Most importantly, perhaps, is the intention we all must surely have to support and promote pro-

grams based not only on an assessment of present and anticipated needs but also on the social and cultural responsibilities which the university has to propose innovative orientations. Long gone is the ivory tower of the town and gown era. We realize now that trends to separate scholarly work or basic science from the practice of a discipline must be reversed to promote direct consumer service which is predicated on the needs of those consumers. And lastly, in my short list, measures are increasingly sought which will correct inequalities with respect to admissions, specifically among different social classes and different ethnic groups.

There are many rather specific recommendations also to be considered in the on-going developmental transition in the operation of the university. For example, mechanisms for approval, creation and evaluation of programs must be made more flexible and efficient, with unnecessary administrative and financial constraints being eased so that the development and implementation of experimental programs will be encouraged. In the view of many, interdepartmental projects, interdisciplinary programs at all levels and inter-university collaboration and cooperation must be fostered for financial and educative gains.

Our discussions, our plans, our initiatives in nursing must be viewed, then, within the context which I have so briefly sketched.

What is the continuing challenge for nursing?

I would like to talk to you if you have the time. . . about a new sort of world. That's because I reckon the world we have is in very deep trouble: and I don't just mean wars, rumours of wars, hunger, pollution, exhaustion of natural resources, violence. . . You can go on with that list: it is all on the menu for what's left of the century, if we get that far. No, there is something more fundamental of which the items we were listing are merely symptoms. Treating symptoms gets you nowhere if there's something really wrong. We are getting nowhere with the disease itself, not even recognizing it. (Beer, 1975)

This is the way Stafford Beer begins his book, *Platform for Change*. His major thesis is that we shall not succeed in reforming our concept of organization or in creating new institutions that actually work simply by hard work — or even hard thought. Rather, says Beer, we need to invoke Science and I would add, use hard data for decision-making instead of consensus and compromise. Scientific study is an important aspect of planning nursing education, including graduate programs. We must recognize and treat the disease: a system of education in nursing which falls short on many counts.

First let us comment on the status of nursing practice and the baccalaureate level of preparation, which is perhaps the most important level of all. In introducing her article "Emerging patterns in Nursing Education", Martha Rogers fits the past, present and future theme of nursing education neatly into one simple paragraph as follows:

Nursing evolution — from prescience to science, from vocation to learned profession, from apprentice-type training to higher education — is marked by a growing diversity of educational opportunities coupled with change from hospital-based initial programs to the development of graduate education in nursing. An emerging sense of intellectual and social parity with other health disciplines furthers nursing's claims to a leadership role in advancing public health and welfare. Concomitantly, some major difficulties have been encountered in the attempt to devise a viable system of education commensurate with nursing's scope and purposes within a world of escalating social, educational, scientific, and technological changes. (Rogers, 1978)

The system of nursing education has fairly recently undergone much needed transformation at all levels, yet major reforms are surely in the offing as a response to the problem which, succinctly stated, is that the very survival of nursing is in question. We are, to put it bluntly, on the horns of a dilemma and some would say largely of our making.

Nurses are often prone to blame forces that they perceive as beyond their control for the problems that beset them. In reality, the resolution of nursing's problems begins with nurses. Confrontation with nursing's well-developed and well-documented anti-educationism, dependency, low self-worth, and naïveté is a necessary condition for creative and productive change. (Rogers, 1978)

Perhaps before we begin to stress more the invocation of Science, we should recognize that an already determined fundamental step is to reduce the present heterogeneity of modes of preparation of nurses. Our plan now needs to be developed and our political and professional role of influence set into motion. It would not be productive here to offer a lengthy argument in favour of collapsing the present three levels of basic preparation — assistant, diploma, and degree — into two levels. The CAUSN Council has already discussed the principle that baccalaureate preparation become the level of entry into the profession. A vote on this issue will be taken this week. However, in the brief to the Comité d'étude established by the Ministry of Education to study nursing programs in the Province of Quebec, both national and regional briefs concur, the national brief stating that by 1990 "we would expect that the B.Sc.(N) will be the basic requirement

for a license to practice nursing" (CAUSN 1979). Clearly the time has arrived to articulate this commitment in every corner of the country and to plan for its implementation. This is a fundamental principle: the objective must be accepted and plans of action evolved even though our means of attaining it will and, indeed, should vary.

The future of nursing lies in the rapid development of the basic or generic baccalaureate program. Again to quote the CAUSN brief:

As we move into our health care system of the future, we become increasingly aware of the complexities of family and community health, of motivating people and of marketing a commodity called health, of consumerism and participation, of involving client families and of negotiating ways of working with them to reach health goals . . . In illness situations nursing is involved in other dimensions, practice differs as all efforts are directed towards healing the person as quickly as possible and, where necessary, to provide for rehabilitation.

Nursing portrayed in this fashion requires a strong base in biological and social sciences, maturity in development of self, and ability to make assessments and plan strategies in extremely complex and dynamic situations related to family and community health. It is important in learning this type of nursing that the student begin with the whole situation and its complexities and learn to deal with them over the whole three or four years of the program. She must be in positions early where she can make decisions, have full responsibility, feel an autonomous agent, and participate as a colleague with other health care professions. . . It is important that the student learn to care for the acutely ill, but only at a time in the program when she can incorporate this within an already developing sense of the scope of the nursing function and of the autonomy and responsibility required to carry it out. (CAUSN brief, 1979).

The person prepared in this way would surely be able to shed the yoke of subordination to others so commonplace today, would prepare herself to fit developing and more independent roles in the health care system including the development of that system, would maximize her contacts with clients or patients or families since the focus is on the practice of nursing, and would be educated to a level congruent with that of the presently least well educated health care professionals instead of below that level. There are those who say this is impossible! If one were really to redesign the professional school to meet rapidly evolving objectives yet remain cognizant of constraints, how might one organize it for more effective and economical professional education?

Development of a genuinely different and more responsive professional education would require major changes. I have referred to some of the issues related to structural change and flexibility, and later will refer to evaluation and other necessary research both in nursing and nursing education.

Briefly one could envision a highly decentralized entity organized around a learning resource centre that includes many laboratories and other sub-centres, all closely linked to community service activities. Only information and control procedures which facilitate learning will be used. Students will progress ideally at their own rate assisted by a small permanent full-time faculty and a large part-time "adjunct" faculty to permit the use of many clinical opportunities and the offering of a wide variety of modules or segments. In this way, the specialization, if you wish, will be built into an integrated curriculum within a general conceptualization of nursing, promoting the generalist basis of practice as its major goal. The "adjunct professors", as Schein (1972) calls them, would be resource people, consultants, teachers, and so on, always maintaining their own practice. They will be involved as well in policy determination and curriculum design.

Schein suggests that the learning module referred to above:

will be flexible enough to accommodate students with different learning styles, will integrate the basic science, applied science and skill elements to be learned, will cost less than present comparable courses, will increase the amount learned by students and encourage students to 'learn how to learn'. (Schein, 1972).

Christman (1976) alludes to similar directions for change by supporting increasing use of educational media, the reintegration of practice and education, the elimination of deadweight from the curriculum, the reorganization of nursing care by nurse faculty members and clinical staff together, and the development of clinical research centres and centres of excellence in nursing as devices for quality assurance.

All of these ideas are contingent in my view upon the rapid evolution of a new type of nurse faculty member comprising the full-time staff. One might call this a movement towards faculty professionalism which is developing within a new and visible faculty power base.

School of Nursing faculties have had difficulties in meeting the general criteria and policies established by a university for its academic staff, and will continue to do so. Tenure rules often require that faculty members be promoted and tenured at the end of the sixth year of appointment to professorial rank or be notified that

there is no expectation of such promotion or of receiving permanent tenure. Usually this means removal from the tenure stream or dismissal. Because the nursing profession does not have a significant number of its members academically prepared, exceptions to this policy have been made. To retain competent faculty and to allow for additional time to meet university criteria some nursing schools have been permitted to develop their own criteria based on clinical performance and teaching skill. These exceptions appear to be phasing out and perhaps this is a positive omen.

In comparing us with persons in disciplines which have been part of the university setting since the ninth century, Barritt (1979) notes that nurses in the university, comparatively new to academe, sometimes have competing requirements with which to contend — faculty status and professional practice:

Physicians, Lawyers, and Clergy have had time to struggle through questions such as academic freedom, research capability, independent practice, and excellence in teaching. Such has not been the case for nursing since it arrived on the academic scene during the beginning of the current century and has spent most of its first 50 years overcoming the 'trade school' image.

The impediments to full academic standing are, however, not entirely generated by those outside of the profession. Many nurses themselves are essentially anti-scholarly and even anti-intellectual. Even now, some still see little reason to research clinical questions as a way to improve professional practice and see no need to expand the knowledge base and elaborate the theoretical structure supporting the practice. These attitudes often have a multiple effect when students and new nurses are discouraged from advanced study. The greater part of the profession still thinks in terms of 'how-to-do-it' programs for the world of work, rather than in terms of the disciplined, lengthy, and often frustrating pursuit of graduate study as the appropriate mode for professional improvement. (Barritt, 1978)

Many authors such as Light (1973) have talked of the multiple expectations of the professorial role and the "strands" of an academic career. The "disciplinary career" relates to professional organization work, publications, research and study for higher degrees. The "institutional career" is identified with the location of the person in the university and associated with tenure, rank, salary and committee activities. The third strand, the "external career" consists of discipline-related activities outside the university such as consultation, writing, outside teaching or workshops and community service (Williamson, 1978). However, in nursing this is still not a complete

picture. An academic career in the university in nursing adds a fourth strand — “practitioner career”. This career is identified with professional certification and competency and with direct patient or client contact in an appropriate environment.

This is a tall order. We cannot be all things, do all things well. However, survival of nursing in the university depends not only on our becoming fully fledged faculty members, hired, promoted, tenured and assigned teaching functions like those in other disciplines, but it also depends on a recognition that university faculty must assume a major role in innovation in programs, and in practice, as well as in research and evaluation relative to practice. For many faculty members these expectations will mean an assessment of career goals and those not meeting university objectives should enlarge the scope of their skills, activities, and interests or select other appropriate career lines before making a lengthy commitment to the university.

Although it was a discussion of baccalaureate education in nursing and of the nature of university life in 1980 which led to the above comments on faculty professionalism it takes only a slight shift in focus to now move into a brief commentary on graduate education and research in nursing. Clearly, faculty members teaching in the university will have themselves acquired graduate education that they may guide and teach students of the profession to view nursing as a helping profession that assists individuals, families, and communities to use their resources to maintain their health, or to regain it when illness has occurred. Indeed, they see their role is to develop a body of nursing knowledge — that is, nursing science. Nursing research explores the interactions of the concepts and principles of the basic sciences as they are applied to human situations requiring nursing intervention. Graduate preparation is required to perform this research.

The direction of a graduate curriculum at the masters' level should be through an organization of learning experiences that permit exploration and integration of theories, that furnish basic tools for testing these theories and other questions in real life situations, and that guide socialization of the advanced practitioner towards responsible leadership.

I am sure that these and other ideas will be discussed fully in a later segment of the conference. But before leaving this issue to talk of research and the doctoral program, allow me to review for you and lend strong support for what is now a quite popular thesis. It has

been articulated so succinctly by Joann Jamann, that I will quote her remarks :

There must be opportunity in the graduate curriculums in nursing for multiple entries. The life-styles of women, (...) requires flexibility in entrance procedures and requirements, and principles of adult education stress the need for such flexibility. Those who have had an opportunity to test and perfect their knowledge, skills, and clinical judgement (learned in the undergraduate professional program) are more likely to benefit from the graduate courses. Moreover, the graduate student with professional experience has a reality base on which to test the theory and "ideal notions" studied in graduate curriculums. Likewise, an interruption in an individual's graduate education in nursing can have beneficial effects on this individual's graduate study. A year or two of professional experience as a nurse clinician permits further perfection of clinical expertise, deeper self-confidence with other professional colleagues, and frequently, clarification of research problems. (Jamann, 1978)

In addition to those who have "alternating" work and study cycles as described above, it needs to be possible for nurses to progress directly through all levels to the doctorate without the interruption of work experience.

The final general area to which I wish to address myself has to do with the development of nursing science. As Beer has remarked we shall not succeed in reforming our concepts of nursing and nursing education simply by hard work. We need to invoke the means to measure and manipulate complexity. to design complex systems which work, to devise viable nursing and educational structures through evaluation, to work effectively with people in other disciplines and to apply all of these to the development of a new or modified system of nursing education. In short, as Sills (1977) stated, nursing must develop and study what is within the larger boundaries of health care. While nursing is not alone in basing much of its practice on dogma rather than on tested theory (Sills, 1977), and while all of us know how imprecise research pertaining to the human organism by necessity must be, we must intensify our effort to reach our goal of tested theory for more predictive practice (de Tornyay, 1977). Educational programs at all levels of nursing are dependent upon research.

Many types of research can only be done by a cadre of researchers prepared at the doctoral level in nursing. The clinical doctorate in Nursing may focus upon research training primarily, or the development of clinical specialization. Although as Grace (1978) has re-

marked, "as one studies doctoral programs throughout the country (U.S.) perhaps the most difficult facet to define is the clinical component at the doctoral level. This is perhaps an outgrowth of the difficulty of theory building in an applied field."

The challenge in doctoral degree programs with a clinical focus is to move nursing theory from a descriptive level to one of intervention and then to build an analysis of interventions into the knowledge base of the practice profession.

Dickoff and James spoke to this issue:

To consider what type of theory is needed for a professional discipline requires articulating professional purpose. A true professional, as opposed to a mere academic, is action-oriented rather than being a professional spectator or commentator (...) A true professional — as opposed to a mere visionary — shapes reality according to an articulate purpose. (...) A theory for a profession or practice discipline must provide for more than mere understanding or 'describing' or even predicting reality and must provide conceptualization specifically intended to guide the shaping of reality to that profession's professional purpose. . . . Nursing must have an action that aims to shape reality, not hit or miss, but by a conception of ends as well as means. (Dickoff & James, 1973).

The central mission of the Ph.D. program in nursing must be to prepare people to develop a knowledge base for nursing and to shape the reality of the nursing function. There is an obligation to build a base of knowledge upon which nursing may develop as a profession in its own right. This knowledge base will have general application to the crucial problems of nursing and health care delivery. Grace has remarked that:

The late development of Ph.D. programs in nursing is ironic in that the learned professions usually develop a knowledge base for their profession first and later transmit this knowledge through educational processes, and make application of knowledge after it has been generated. In nursing, the reverse order seems to have prevailed, perhaps because the knowledge we have used has been that which we have borrowed.

It is crucial at this stage of professional development that we free ourselves from the outer-direction of the past and become inner-directed as a profession. This inner-direction can only occur as we seriously consider the nature of the knowledge base needed for the development of nursing as a profession. (Grace, 1978)

The question has been asked with great frequency of late: What does a nurse researcher focus on that some other investigators do not? The answer would almost always be that the nurse would focus upon the "person as a whole in the context of his living environment." If this is true, then nursing programs for the Ph.D. must facilitate the effective merging of scientific fields to generate a new body of nursing knowledge.

The argument always arises as to whether one should prepare a generalist and/or a specialist at the masters level and a clinician and/or a researcher at the doctoral level. These options will need to continue to be discussed. However, perhaps the following quotation from Haskins will assist us to answer the first of these problems:

There was a time when intense specialization in some closely defined scientific arena seemed the most powerful approach to understanding, and the fragmentation of knowledge which followed, with the breakdown of communication and mutual understanding that too often was its consequence, indeed seemed a regrettably high price to pay, but still a necessary one. That trend persists. Many of our more conventional institutions for scientific training are, in fact, not only adapted to it but, unfortunately, have become unwittingly deeply committed, in their structure and their philosophies, to its perpetuation. But in recent years the contrary approach has become dominant. . . . Today it is clearer than it has ever been that the gifted scientific must be prepared to forge his intellectual tools from the fires of many disciplines, and perhaps in the course of his work, design cross disciplines of his own. For the grand strategy of this age is to bring every resource of knowledge and ingenuity and intellect to bear upon the task of further widening and deeper understanding, of breaking new frontiers, over the whole range of scientific investigation. (Haskins, 1975)

The Ph.D. in nursing should be primarily for the purpose of preparing researchers. Thus, persons should enter the program with an extensive clinical background at the masters level if they are to learn methods appropriate to clinical nursing research.

Nursing science which will allow the profession to appraise systematically the inherent resources for improving the health status of individuals, families and communities and to mobilize or supplement these resources for health maintenance or restoration is our goal. Clearly, and in line with Haskins and others' suggestions described above, this requires programs at the baccalaureate and graduate level predicated upon a broad conceptual framework for nursing, which at

the graduate level can be utilized by the nurse to further develop expertise in individual areas of inquiry and practice.

In summary, it is not enough to be developing a core of nurse researchers who are directed toward developing a body of nursing knowledge. This must be coupled with a group of equally prepared expert clinicians who take this body of knowledge into the clinical practice area, apply it in the care of patients, and test out the effects of new approaches in the patient care situation. In this systematic way, nursing can begin to demonstrate that application of nursing knowledge does make a profound difference upon the quality of the life experience.

The road ahead for nursing offers many challenges. (Grace, 1978)

The number of nurses prepared at the doctoral level is increasing rapidly. This will not make its full impact, however, unless a substantial number is prepared in doctoral programs in nursing. De Tornyay (1977) notes that doctoral training in nursing, as in other fields, will only be the beginning of the career in research. Where a doctoral program in nursing exists, there must be a critical mass of productive nurse researchers so students will be drawn to the institution because they share an interest with the investigator. It is the faculty which draws the student and not the institution.

Limitations and boundaries are not useful frameworks when social change is in order.

The conceptual framework guiding our development for more than a century has been one of limitations and boundaries. This framework has defined our professional identity, our political existence and our relationships in the world of work.

It is precisely this framework of boundaries and limitations that the present generation of nursing students and scholars must transcend if we are to develop meaningful theories to guide the expanding horizons of our practice and our persons. (Ashley, 1978).

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Editor's Note: In Volume 12 (1 & 2) of Nursing Papers, Appendix A to 'The Invulnerable Child' by Sharon Ogden Burke was, in error, attached to the preceding article on Simulation Games. The reader should also be aware that the fourth paragraph on page 52 should read, "It is theoretically significant that these basic demographic variables which correlate with so much of child behaviour are not likely to be factors in the development of a child's vulnerability."

RESUME

LE DEFI PERMANENT QUI SE POSE AUX SCIENCES INFIRMIERES*

L'évolution rapide des conjonctures sociales, politiques et démographiques est à l'origine de l'évaluation des programmes universitaires existants. Des programmes plus imaginatifs et coordonnés sont nécessaires. Les projets interdépartementaux, les programmes pluridisciplinaires et la collaboration entre les universités doivent être axés sur des considérations tant financières qu'éducatives.

Le conseil de l'ACEUN a approuvé comme principe d'exiger que la préparation de baccalauréat devienne le niveau d'admission dans la profession. L'avenir des sciences infirmières sera alors fonction du développement rapide du programme de baccalauréat de base ou générique. Ce programme sera établi sur une solide base de sciences biologiques et sociales et les étudiants apprendront à évaluer et à planifier des stratégies dans des situations extrêmement complexes et dynamiques liées à la santé familiale et communautaire ou à la pratique directe visant à guérir l'individu le plus rapidement possible.

L'orientation du programme de maîtrise devrait consister en expériences d'apprentissage qui favorisent l'intégration de théories, qui procurent les outils permettant de vérifier ces théories ainsi que d'autres questions se posant dans la réalité et qui guident la socialisation du praticien avancé vers l'exercice d'un leadership responsable.

La mission primordiale du programme de doctorat en sciences infirmières est de préparer infirmières et infirmiers à développer une base de connaissances au moyen de la recherche et à façonner la réalité de la fonction de l'infirmière.

A tous les paliers, il est permis d'envisager une formation professionnelle hautement décentralisée agencée autour d'un centre de ressources d'apprentissage comprenant plusieurs laboratoires et autres centres auxiliaires, tous étroitement liés aux activités des services communautaires. Il y aura un corps enseignant limité en nombre mais permanent et à plein temps ainsi que de nombreux autres enseignants adjoints à temps partiel afin de permettre l'utilisation d'une grande variété d'expériences éducatives. Si l'on veut que les sciences infirmières survivent à l'université, les enseignants à plein temps doivent apprendre à faire face aux attentes multiples du rôle de professeur comprenant les fibres "disciplinaire", "institutionnelle", "externe" et clinique de la carrière universitaire.

* L'exposé original a été présenté à la conférence annuelle de l'Association canadienne des écoles universitaires de nursing à Montréal, juin 1980.

RELATIONSHIPS BETWEEN CLASSROOM THEORY AND CLINICAL PRACTICE

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One might expect students with a strong theory base to do better in clinical situations than peers with a weaker theory grasp, yet nursing instructors all are aware of situations where transfer and application of knowledge and skills do not flow easily. A strong theoretical student may, in fact, be only functioning at a fair level clinically while a weaker student in the classroom may achieve high marks in a clinical setting.

What is the relationship between students' grades in theory and their grades in clinical settings? And are grades within the school reflective of achievement in the entrance examinations to the profession? These questions led to a study of the relationship between scores achieved by second-year students at the University of British Columbia in the classroom, in the clinical setting, and in outside examinations such as the National League of Nursing (NLN) Achievement Tests and the Canadian Nurses' Association-sponsored Registered Nurse (RN) Examinations.

Other studies have indicated that State Board Examinations (SBE, the equivalent of the Canadian RN examinations) and the NLN Achievement Tests measure cognitive ability but are not indicative of job performance (Bell, 1976; Brand, Hastie and Schumann, 1966). Several studies have shown positive correlation existing between the NLN examinations and the SBE, particularly with Medical-Surgical, Psychiatric, and Public Health areas (Brandt, 1966).

PURPOSE

The basic purpose of the study carried out during and following the 1976-77 academic year was to determine the relationship among various theoretical and clinical grades given in the second year of the program at the University of British Columbia.

Specific questions explored included:

1. What is the degree of relationship between the grades received in theory components and those received in clinical practice components?
2. What is the degree of relationship between multiple choice and short answer questions on examinations in theory?
3. What is the degree of relationship between scores received in similar areas of clinical nursing to the NLN and RN scores?
4. What is the degree of relationship between the clinical rotation

sequence and the grades in the nursing course, and the NLN and RN scores?

Study Group

The population consisted of 105 second-year nursing students at the University of British Columbia School of Nursing. Students had patient care experience incorporated in their first-year nursing course in addition to electives. Clinical placements in Medicine, Surgery, Psychiatry, and Pediatrics occurred in second year, followed by a return to one area and then a consolidation experience combined with a leadership component. On successful completion of second year, students wrote their RN examinations. Following completion of another two years these students would receive their B.S.N. degree.¹

METHODOLOGY

Methods used to measure student development in second year included clinical evaluations, three examinations (December, April, and July), and two formal papers (February and July). After each clinical rotation and after each examination (school, NLN and RN), students' grades were recorded in order to facilitate processing of data. Pearson Product Moment Correlations were used and were summarized in a matrix to determine areas of relationships. The data were processed by computer.

FINDINGS

Relationship Between Theory and Clinical Grades

Success in the nursing course during the winter program was strongly correlated to success in the summer term program ($r = .61$). (see Figure 1) Examination results were strongly correlated with winter and summer term nursing course marks ($r = .66, .76, .59$). The April examination was a better indicator of clinical performance than the December or July examinations. No significant correlation was shown between the first clinical rotation and the December examination ($r = .12$), nor between the July examination and the summer clinical rotations. In contrast, correlation was $r = .41$ and $.46$ between the April examination and the second and third rotations.

The formal paper marks did not relate well to either examination or clinical scores, and the February paper was negatively but not significantly correlated with the summer paper.

The student who did well in clinical did well in her overall course grade. Correlations indicate that clinical grades accounted for 27-58% of the variance. The student who did well in one clinical rotation also did well in other clinical rotations, with the strongest correlation being between the second and third placements.

Figure 1

Correlation of Examinations, Clinical, and Total Second Year Scores																
EXAMINATIONS	EXAMINATIONS						CLINICAL						TOTALS			
	December	M.C.	S.A.	April	M.C.	S.A.	July	M.C.	S.A.	I	II	III	IV	V	VI	Winter Course
December (60)																
Multiple Choice (63)	.89															
Short Answer (35)	.80	.45														
April (70)	.60	.52	.52													
Multiple Choice (90)	.56	.47	.50	.96												
Short Answer (35)	.56	.50	.45	.84	.66											
July (100)	.50	.40	.49	.58	.58	.43										
Multiple Choice (54)	.41	.36	.35	.52	.52	.38	.84									
Short Answer (31)	.43	.30	.46	.44	.43	.34	.80	.36								
CLINICAL																
Rotation I (80)	.12	.13	.06	.18	.17	.17	.11	.12	.08							
Rotation II (80)	.38	.36	.29	.41	.36	.43	.25	.28	.16	.38						
Rotation III (80)	.27	.27	.17	.46	.39	.49	.30	.24	.28	.27	.61					
Rotation IV (60)	.24	.21	.22	.25	.25	.20	.35	.26	.32	.07	.26	.28				
Rotation V (60)	.29	.24	.26	.19	.17	.18	.26	.20	.24	.28	.26	.31	.24			
Rotation VI (60)	.25	.29	.12	.11	.09	.12	.04	-.05	.13	.21	.24	.32	.20	.23		
TOTALS																
Winter Course (400)	.66	.60	.52	.76	.70	.69	.52	.48	.41	.52	.76	.74	.34	.35	.30	
Summer Course (300)	.52	.46	.46	.44	.41	.38	.59	.44	.49	.32	.43	.44	.64	.64	.59	.61

Degree of Significance: for 100 students
for 30 students

1% $r = .23$ 5% $r = .19$
1% $r = .41$ 5% $r = .35$
* = 1% degree of significance
** = 5% degree of significance

Relationship Between Examination Scores

The relationships indicate that the students who did well on their December examination also did well on April and July examinations. The correlations of .60 and .50 were not only significant at the one percent level of significance but also explain 25-35% of variance. Further breakdown indicated those who did well on the multiple choice questions also did well on the short answer section (December $r = .45$, April $r = .66$, July $r = .36$), with the highest correlation occurring in the April examination.

Relationship Between Clinical Scores and the NLN and RN Scores

There was significant correlation between all NLN Achievement, RN examination results and the winter and summer nursing course results, with one exception: the NLN Child examination and the summer course. The NLN scores correlated higher than the RN scores with the nursing course. Figure 2 shows the relationships between the NLN Achievement Tests, the RN examinations and the nursing courses. The relationship between the specific clinical area of practice and that particular NLN and RN score was highest for the Medical rotation and examinations, and then the Pediatric rotations and their NLN and RN examinations.

Relationships Between Clinical Rotation Sequence and Grades

There was little difference in overall marks, clinical and theory scores, by sequence group. Grand mean scores ranged from 287 - 295 out of a total possible range of 400 in the winter term nursing course and from 229-235 of a possible 300 marks in the summer nursing course. (The mark breakdown is given in figure 1 for each of the components of the winter and summer term courses. The February and July formal papers were 30 and 20 marks respectively). These scores were the grand mean totals of the students in each sequence pattern for their total grades in the winter and summer nursing courses. Little difference existed for theory and group mean scores varied only 7 and 11 marks for the winter and summer term clinical courses of a possible 240 and 180 marks.² However, on closer examination, the sequence utilized did appear to make some difference. The Pediatric, Medicine, Surgery, and Psychiatry sequence had a correlation between clinical and theory of $r = .59$ whereas the group who did Psychiatry, Pediatrics, Medicine and then Surgery had a correlation of $r = .19$. The total class correlation between clinical and theory was $r = .44$ for the winter term course. The summer term course correlation between clinical and theory was $r = .54$ and the sequence of Medicine, Surgery, Psychiatry and Pediatrics had a correlation of

Figure 2
Correlation of Second Year, NLN, and RN Scores

	Winter Course Total	Summer Course Total	Nursing Care I	NLN Achievement Tests		
				Newborn	Child	Psychiatry
<u>NLN Achievement Tests</u>						
Nursing Care Pt. I	<u>.58</u>	<u>.35</u>				
Newborn	<u>.60</u>	<u>.35</u>				
Child	<u>.56</u>	<u>.19</u>				
Psychiatry	<u>.55</u>	<u>.26</u>				
Basics	<u>.45</u>	<u>.31</u>				
<u>RN Examinations</u>						
Medicine	<u>.52</u>	<u>.36</u>	<u>.55</u>			
Surgery	<u>.52</u>	<u>.32</u>	<u>.60</u>			
Obstetrics	<u>.48</u>	<u>.35</u>		<u>.44</u>		
Pediatrics	<u>.47</u>	<u>.23</u>			<u>.56</u>	
Psychiatry	<u>.45</u>	<u>.40</u>				<u>.53</u>
Degree of significance: for 100 students 1% $r = .23$ 5% $r = .19$						
for 30 students 1% $r = .41$ 5% $r = .35$						
= 1% degree of significance						
= 5% degree of significance						

$r = .65$. In contrast, the group doing sequence Medicine, Surgery, Pediatrics and then Psychiatry had $r = .32$, therefore being considerably lower.

The sequence of rotations appears to have had some effect on the NLN and RN scores. The first rotation in the nursing course proved not to be significant as an indicator of success on the NLN or RN examinations, whereas Medicine as a second rotation was correlated significantly. The Surgical rotation proved a stronger indicator as the year progressed for the RN examinations. There was little to no significant relationship between the Psychiatric and Pediatric clinical scores, and the NLN and RN scores.

DISCUSSION AND IMPLICATIONS

Students who do well on examinations tend to continue to do well on future examinations. However, those who did well on multiple choice questions were not consistently the ones who did well on the short answer questions. Perhaps this points to the need for examinations to contain a variety of testing methods such as multiple choice, short answer, essay, true and false, and matching questions to assess the students' overall understanding of course content.

Those students who did well on the December examination continued to do well the remainder of the year. This finding may lead to

greater emphasis on identifying weaker students and providing counselling services for them at this time.

Theoretical scores did not correlate highly with all clinical scores. No correlation was found between the first rotation and the December examination. Only for the April examination did the clinical and theory scores show any interrelationships. This reinforces the belief that nursing is a complex combination of behaviours, attitudes, knowledges, and skills; development of proficiency in applying this combination requires more than just an understanding of theory. Furthermore, the student needs to display ability to apply theory in caring for clients who are both ill and well.

Evaluation of all these components requires many forms of testing procedures. It therefore seems reasonable that the student who does well in one area may not perform as well in another, even when both parts are needed. The transfer and application of the information perhaps requires a different thinking process which may not be demonstrated on paper.

Clinical scores strongly correlated with success in the course and the correlation became progressively higher as the year continued, to the point where the second and third rotations were highly related to success in the winter term nursing course. Similarly, success in the summer clinical placements was highly correlated with higher course grades. Perhaps as students became more knowledgeable and had clinical experiences which they could relate to the theory, they were able to grasp the concepts, remember them, and apply them better in other situations.

Clinical scores strongly correlated for only the second and third rotations in the winter course. The first rotation had the lowest relationship to other rotations. Perhaps the students became adjusted towards situations in the first rotation, and similar content was being emphasized to all groups regardless of the clinical setting. This first clinical experience was also the students' first contact with patients in an acute care setting and possibly they had to adjust. This situation may have taken away from their ability to utilize new information and skills. Perhaps we need to take this into account in defining expectations in the first clinical experience. The students may require additional exposure to that type of client situation at a later date.

The low correlation with other rotations seems difficult to explain. It may be due to the fact that although similarities certainly exist in

all clinical settings, students must apply new information to the types of clients and their difficulties, and must adapt to using skills in new situations. Some students may be more adaptable and be able to become oriented quickly to a new area, whereas other students are slower. Some students also are slow developers or "late bloomers." These students may not do as well in the earlier part of the year but are able to pick up quickly when things start to fall into place. Other students are able to cope when the expectations are less. But as the year goes on and the expectations increase, they have greater and greater difficulty coping with the added responsibilities, clinical judgements, depth of care, and other nursing and team responsibilities.

The sequence of rotations showed no significant differences in scores of persons undergoing the rotation. One pattern, (Pediatrics, Medicine, Surgery and Psychiatry) did reveal higher clinical-theoretical relationships. The lowest clinical-theoretical relationship was Psychiatry, Pediatrics, Medicine, and Surgery. The class content relating more specifically to Psychiatry and the care of patients with emotional difficulties is not scheduled in the fall term. This left students having their clinical rotation in Psychiatry first at some disadvantage, although they became familiar with considerable content from instructors while in the field. The Medical-Surgical class content is scheduled throughout the year because that is where the majority of the students are having their clinical experience. Integration is attempted but this is still a difficulty.

A powerful correlation existed between the scores on the NLN and RN examinations, although the NLN scores were higher. Higher correlation was found between these tests and the winter nursing course scores than the summer course scores. A different emphasis in course content may be reflected in these values. In the summer, emphasis is given to consolidation of material and greater depth of care together with leadership principles, and the leadership component is not tested in the outside examinations.

Strong correlation between NLN and RN scores may indicate some potential usefulness of the NLN Achievement Tests in providing some guidance to students who are preparing for the RN examinations. The NLN test results could be used for student feedback and a basis for student assistance.

The relationship is also positive when we look at specific clinical areas and success in NLN and RN scores. The Medical and Pediatric correlations each seemed quite good. The Surgical rotation proved a stronger indicator when students took it later in the year, and this

might be explained by the more general nature of the surgical experience at an earlier time in the year. No relationship between Pediatrics and Psychiatry to their RN and NLN scores was found.

Summary

A study was done to determine the interrelationships among theory course grades, clinical practice grades, sequence of rotations, NLN Achievement Tests and RN examinations of second-year nursing students at the University of British Columbia. It was concluded that both classroom examinations and clinical evaluations were good indicators of course success, and success in NLN and RN examinations. However, the relationship between clinical and theory was weak. The sequence pattern of rotations seemed to have some influence on the relationship.

The results support the null hypothesis that there is no relationship between examinations and clinical practice, and suggest a need for a wide variety of testing procedures in order to get a full picture of the students' abilities related to nursing. Research in nursing education could emphasize multiple measure of students' ability or learning. The results also suggest that students who do well in one area may not necessarily do well in other clinical areas.

The results of the study are reflective of one class of students in one nursing school and results cannot be generalized beyond that population.

¹ The U.B.C. program incorporates the ladder concept in its two plus two program. The first two years are eleven months long with one month off in August. It is incumbent upon the instructors to prepare the students to be R.N.'s at the end of the second year.

First year courses:

September - April: Nursing the Well Person, Human Behavioural Science, English, Zoology, Microbiology.

May - July: Maturational Problems of the Well Person (clinical experience in Obstetrical and Extended Care areas)

Second year courses:

September - April: The Person with Problems Related to Loss, Pathology, Anthropology or Sociology, free elective (3 clinical placements - 12 hours/week)

May - August: The Person with Problems Related to Loss (3 clinical placements - 24 hours/week)

² Sequence patterns with the numbers of students in each in brackets [].

1. Medicine, Surgery, Psychiatry, Pediatrics [27]
2. Medicine, Surgery, Pediatrics, Psychiatry [7]
3. Pediatrics, Medicine, Surgery, Psychiatry [20]
4. Surgery, Pediatrics, Medicine, Surgery [6]
5. Psychiatry, Pediatrics, Medicine, Surgery [20]
6. Surgery, Psychiatry, Pediatrics, Medicine [20]

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RESUME

RELATIONS ENTRE LA THEORIE ENSEIGNEE EN CLASSE ET LA PRATIQUE CLINIQUE

Cette communication fait état des résultats d'une étude visant à déterminer les relations entre les notes obtenues aux cours théoriques, celles obtenues pour les travaux cliniques, la séquence des stages, les résultats des tests NLN (NLN Achievement Test) et ceux des examens de sciences infirmières des étudiantes de deuxième année (programme universitaire). On a conclu que les examens en classe et les évaluations cliniques étaient tous deux de bons indicateurs de succès au cours et aux examens de sciences infirmières ainsi qu'au test NLN. Toutefois le rapport entre la clinique et la théorie est apparu faible. Il semble que la séquence des stages ait quelque influence sur cette relation. Les résultats semblent également indiquer que les étudiants qui réussissent dans un domaine n'auront pas nécessairement les mêmes succès dans d'autres domaines cliniques. Les résultats de l'étude reflètent les observations d'une classe d'étudiants effectuées dans une seule école de sciences infirmières et on ne peut les généraliser au-delà de la population étudiée.

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THE DEVELOPMENT OF A TEACHING MODULE FOR NURSING STUDENTS ON DRUG USE INFORMATION*

by SHEILA ZERR

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One of the important factors in maintaining good health is the responsible management of one's body. Minor aches and pains can arise without endangering our health, but the treatment of these ailments can prove hazardous. †Increasingly, our society looks to over the counter (OTC) drugs as a panacea — a panacea whose drawbacks and possibilities are not widely known.

The fact that OTC drugs are used in large amounts in our society is well established. Di Palma (1974) states that the American public purchases 12,000 tons of aspirin annually, enough to provide almost 300 tablets per person. The people purchasing and consuming these drugs need information and guidance to use them properly. Without adequate instruction OTC drugs can become misused and pose a serious health hazard.

Medical intervention is therefore needed at the preventive stage. Nurses can help meet this challenge by stimulating public awareness of OTC drugs through educational programs.

The overall purpose of this study is to influence public knowledge by developing a teaching program which will result in the safe, responsible use of OTC drugs. The study will be developed in stages. First, it is hoped to develop a reliable teaching strategy which will prepare the nurse with adequate knowledge to teach OTC drugs effectively. Then community teaching programs will be developed for individual and group sessions, and the nurse's teaching strategies evaluated. Once effective teaching strategies have been established it is hoped to develop a variety of community programs for OTC drugs. Based on the results obtained in the initial phases of this study, it is hoped self-study instructional program and evaluation strategies will be developed to establish the effectiveness of these programs.

*This research was supported by a grant from the Sterling Drug Company, Aurora, Ontario.

†For the purposes of this study OTC drugs will be defined as those items purchased for the alleviation of minor, self-limiting ailments without the advice or prescription of a physician.

A review of nursing curricula suggests that nurses may have limited knowledge of OTC drugs. Provision of educational materials which would be readily available in hospitals and in the community might help overcome this deficiency. For this reason instructional material in a programmed learning format was chosen for this study as a vehicle to impart the knowledge to the practicing nurse. Programmed learning is defined by Gibbons (1971) as "programmed teaching by text and machine with each segment of the course divided into small, but rigorous steps, each of which is rewarding." The written programmed learning format developed in this study provides all the information needed to prepare for teaching sessions with individuals and/or groups in the community.

The initial programmed instructional module was developed using Acetylsalicylic Acid (ASA) as the drug prototype because it is one of the most commonly used OTC drugs and because of the risks of misuse. Once the ASA program has been developed and the format tested, the results of this study will be used to develop programs for other widely used OTC drugs such as laxatives and vitamins. The problem identified for the first phase of the project was to determine the most appropriate teaching strategy to impart knowledge of an OTC drug, ASA.

A review of the literature indicates the development of programmed learning. Mager (1962) contributed to the development of objectives for programmed learning and Popham (1975) helped establish instructional sequences. As early as 1962, Brown applied programmed learning to mathematics with empirical data showing achievement equal to, but not significantly better than, traditional methods. More recent studies using the computer form of programmed learning show results similar to Brown's. Taylor (1974), Johnson (1966), and Katz (1971) all investigated the effects of programmed learning by computer and found no significant differences in achievements compared with traditional methods. Studies have been done using the computer form of programmed learning in nursing education. Bitzer (1973) and Collart (1973) used computer programmed learning in nursing with results similar to studies in other disciplines. Achievement was equal to traditional methods but not significantly higher.

It was concluded from a review of the literature that programmed learning has produced as much learning as traditional instruction, but further studies are needed to establish the effectiveness of this form of instruction. The first phase of the ASA project was then

instituted to determine the effectiveness of programmed learning as a teaching strategy to prepare the nurse to teach the OTC drug ASA.

Two assumptions have been made in the formulation of the hypothesis for this study. The first is that self-study in the programmed learning format will be an effective means of preparing the nurse to teach OTC drugs. The second is that the development of an effective teaching module using ASA as the drug prototype can be applied to other OTC drugs effectively.

A research hypothesis along with two null hypotheses have been formulated:

Research Hypothesis:

Nursing students using the programmed learning methodology will achieve significantly higher posttest scores than nursing students taught by the lecture method.

Null Hypothesis:

1. There will be no significant difference in the posttest achievement scores of the nursing students receiving a programmed learning module and the students receiving a lecture in ASA.
2. There will be no significant differences in retention by the nursing students receiving a programmed learning module than by nursing students receiving a lecture in ASA.

A volunteer sample from students throughout the four years of the baccalaureate program was used. Although subjects were at different levels in their nursing course, a gain in knowledge was demonstrated by a difference in the pretest posttest results of all students.

The program was available in French and English. The French program was a direct translation from the English, so test results were analyzed together.

The study sample began with 99 volunteers. Of this sample, 74 completed the pretest posttest, indicating a 25.25% drop out. Only the scores of those completing the pretest and posttest were studied for achievement as suggested by Campbell and Stanley (1972). Fifty-nine subjects completed the posttest for retention, indicating a 20.27% drop out from the posttest.

The subjects were randomly assigned to an experimental group and a control group. The experimental group was then assigned to the module and the control group to the lecture. The pretest was given to both groups before the experimental group was given the module. The experimental group was allowed a period of two weeks for com-

pletion of the module. The control group was given a 90-minute lecture at the beginning of this two-week period. Students attending the lecture were instructed to follow their established study style for lecture material with their knowledge of the lecture content to be tested in two weeks. They could take notes if they wished. At the completion of two weeks both groups wrote the posttest. Six weeks from the writing of the posttest, the postposttest for retention was written by both groups.

The module was written in programmed learning format with an instructional sequence for each of the 12 objectives of the program. The lecture was given using the 12 objectives of the instructional program in the module. In this way the content covered in the lecture was very similar to the content of the module.

The pretest and posttest were in the form of a case study questionnaire. The number of correct points given under each question was scored for a total mark. There was a possible total of 56 points on the pretest and 64 on the posttest. There was an eight-item difference on the posttest due to the possibility of identifying a greater number of adverse side effects. The postposttest was an objective recall questionnaire for a possible 17 points. The pretest and posttest took approximately 20 minutes to write while the postposttest took approximately 10 minutes.

The Campbell and Stanley (1972) experimental design number four was used, (i.e., a pretest posttest control group design with a postposttest for retention). Analysis was by pretest posttest gain scores to compute a *t* test result between experimental and control group to the 5% ($p=.05$) level of probability. A one tailed *t* test analysis was used to test for a significant difference between the experimental and control group.

Results:

Table 1 presents the mean experimental and control achievement scores for the students at the four levels of the nursing program for the pretest, posttest and postposttest. The use of a volunteer sample resulted in a difference in the size of the groups between each year.

Table 2 presents the total scores from the entire sample at the four levels. Scores from the entire sample were used to compute the standard deviation and *t* test for significance.

Table 3 shows that *t* ratios of significance at the 5% ($p=.05$) level of significance and at the 1% ($p=.01$) level of significance for the posttest and the postposttest.

TABLE 1

MEAN ACHIEVEMENT SCORES BY EXPERIMENTAL AND CONTROL GROUPS

GROUP	PRETEST	POSTTEST	POSTPOSTTEST
FIRST YEAR			
EXPERIMENTAL	8.11 (18)	22.33 (18)	12.31 (16)
CONTROL	7.31 (19)	22.42 (19)	11.06 (16)
SECOND YEAR			
EXPERIMENTAL	14.33 (6)	30.00 (6)	11.20 (4)
CONTROL	15.00 (5)	26.00 (5)	9.35 (3)
THIRD YEAR			
EXPERIMENTAL	16.75 (8)	31.62 (8)	13.33 (6)
CONTROL	13.33 (9)	29.00 (9)	12.40 (5)
FOURTH YEAR			
EXPERIMENTAL	16.75 (4)	24.25 (4)	9.00 (4)
CONTROL	10.40 (5)	27.80 (5)	9.20 (5)

NOTE: The numbers in parentheses indicate the number of students who completed the test.

We fail to reject both null hypotheses based on results of analysis disclosed in the one-tailed t test. Although the group mean was higher in the posttest and postposttest, analysis indicates the degree is not significant. We conclude that there is no significant difference in achievement by students receiving the programme learning module over students receiving the lecture in ASA. We also conclude that there is no significant difference in retention between students receiving a programming learning module and students receiving a lecture in ASA.

Certain problems in design and control of variables were recognized. First, the volunteer sample could affect internal validity by possibly drawing only high achievers to the program. Second, experimental mortality was a problem. This was mainly due to the timing of the project started in mid-February which was late in the academic year, and mortality rates reflect this. The project was completed in April which meant students had assignment and exam pressures during the project testing sessions.

TABLE 2

MEAN AND STANDARD DEVIATION OF TOTAL SAMPLE SCORES

GROUP	PRETEST	POSTTEST	POSTPOST TEST
Experimental			
Mean	10.97	25.88	11.93
Standard deviation	3.76	8.06	3.59
Number of students	36	36	30
Control			
Mean	10.15	25.15	10.78
Standard deviation	4.49	8.68	3.20
Number of students	38	38	29

Another recognized problem was the time involved for experimental and control groups. Students were asked to fill out an evaluation questionnaire at the completion of the program. Results showed the average time spent on the program for the experimental module group was eight hours compared to three hours for the control lecture group. The experimental group was asked if they found the module long and tedious. Forty-two percent agreed and fifty-seven percent disagreed. It was evident the programmed learning module was more time-consuming but the majority of students doing the programmed module said they enjoyed doing it and liked the freedom to work at their own pace.

Limited statistical analysis was another problem. Due to a lack of time and funds, only the *t* test of significance was done. Future phases of the study should include *F* test comparisons, correlation studies and item analysis.

In summary it appears that the programmed learning teaching module is at least as effective as the lecture method. Results did not show a significant difference in achievement but the programmed learning module should be accepted as an alternative to traditional teaching methods.

TABLE 3

t RATIOS FOR THE POSTTEST AND POSTPOSTTEST

Group	t test results	99% levels confidence	95% levels confidence
Posttest			
Experimental			
M 26			
S 8.06			
N 36	.59	99 ^t 72	95 ^t 72
Control		2.65	1.99
M 25			
S 8.68			
N 38			
Postposttest			
Experimental			
M 11.93			
S 3.59			
N 30	.78	99 ^t 50	95 ^t 50
Control		2.68	2.01
M 10.78			
S 3.20			
N 29			

NOTE: M represents mean of total scores
 S represents standard deviation of total scores
 N represents total number of students in the group

On the basis of the results received, it can be concluded that the teaching module developed could prove to be an effective means to prepare the nurses to teach OTC drugs. Revision of the material should be considered to reduce the length of the module and to eliminate repetition where possible. Projects should be implemented earlier in the year, so as not to coincide with final exams.

Following correction and revision of the teaching module developed, the project will move into the next phase. The ASA module will be studied for effectiveness by application in the community. The ASA teaching module developed in the first phase of this study will be used to develop educational programs for other widely used OTC drugs and to promote safe, responsible use of these drugs.

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RESUME

ENSEIGNEMENT PROGRAMME A DES ETUDIANTES- INFIRMIERES SUR LES MEDICAMENTS VENDUS SANS ORDONNANCE

Plusieurs médicaments se vendent couramment sans ordonnance (VSO). Leur utilisation inutile ou excessive peut nuire considérablement à la santé de la population renseigné inadéquatement. Cette étude constitue la phase 1 d'une recherche dont le but global consiste à éclairer le public sur l'usage responsable et judicieux des VSO.

Comme l'infirmière exerce ce rôle préventif, l'auteur a préparé à l'intention d'un groupe expérimental d'étudiantes (GE) un module d'enseignement programmé se limitant à l'acide acétyle salicylique (AAS) fréquemment vendu dans le commerce.

L'hypothèse voulait que les sujets du GE obtiennent des résultats supérieurs comparativement à ceux d'un groupe témoin (GT) apprenant par une méthode magistrale.

Les 74 étudiantes volontaires dans les quatre années du baccalauréat subirent un pré-test. Le GE reçut ensuite l'enseignement programmé de douze objectifs et de douze séquences alors que le GT recevait 90 minutes de cours magistral.

Chaque groupe se soumit à un post-test deux semaines plus tard. Finalement, une seconde vérification de la rétention fut opérée après six semaines.

L'analyse des données au moyen d'un test *t* unilatéral ($p = .05$) montra des résultats comparables chez les deux groupes.

ANALYSIS OF STUDENT PERFORMANCE RATINGS* A RESPONSE

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I have reviewed this study report primarily from the perspective of research methodology and statistical treatment since these are my areas of particular interest.

The topic of performance evaluation addressed by Dr. Angus is one in which educators and supervisors of a practice profession such as nursing are continuously needing to examine and develop. Her study, although limited in scope, has added another dimension to the potential framework for valid evaluation of clinical performance, particularly in the area of differentiation in competencies within and between students.

In reviewing the study report it would have been most helpful to have had more information on the accepted definitions for the five scales of behavior adapted from Tate (1964) as well as how these scales were used to collect the performance data. Since the five scales were given equal weighting in the total instrument, a definition of the performance concepts is essential for the reader to determine his assessment with the outcomes. Similarly, it is important to know the number of faculty persons within which a seventy-five percent agreement on item-scale assignment was considered sufficient to indicate instrument interrater reliability. A standard deviation of .75 on item-scale assignment with scales having a total range of 2.00 could be seen as excessive, particularly if the sample in which it was obtained is small in size. It is not clear if students were evaluated by direct observation, or anecdotal record, on a single occasion, or by a single instructor, or if the data for each evaluation period were a composite of a specified number of observations by more than one person. Since individual performances do vary within a considerable range of "normal for that person", one would hope that the data were cumulative in origin.

It is interesting to note that Angus reports mean scores for the total sample above the midpoint on each performance scale. Such

* Analysis of Student Performance Ratings by Monica Angus appeared in the the Spring/Summer 1980 issue of *Nursing Papers* (Vol. 12, 1/2).

results seem not uncommon in reports of evaluation research and raise two questions in my mind: (1) how likely are instructors to evaluate students at levels below the midpoint on a scale when the descriptors are clearly negative? and, (2) what was the range and the median score obtained on each scale? The concept of developing a cut-off score for acceptable performance in each scaled behavior has exciting possibilities for using quantitative measures to determine student promotion through a program. One possible method of developing such a score would be to determine, descriptively and mathematically, a confidence interval of safety, or minimal competence, below the mean score for each scale once that scale has been sufficiently tested to prove valid and reliable.

Angus has addressed the dilemma of assessment very well. It is indeed difficult to determine whether incompetence is a function of inexperience or is a function of a more basic lack of comprehension. We need to pursue research such as this to become more able to facilitate learning and yet safeguard the standards for professional practice.

The indications of shift in scores between the two years, and within the second year of the diploma program, suggest that there may be a number of intraprogram factors operating: course content in each year, teaching emphasis, clinical practice time and focus, and faculty expectations. Angus has suggested further research using this and other instruments to quantify performance evaluations. I would also suggest adding a dimension of study into the relevance of a school's philosophy to the selected scales for measuring performance.

Dr. Angus has given us an interesting example of the type of clinical performance research which is much needed, not easily accomplished, and challenging to each member of the profession in the outcomes reported. I would look forward to seeing an extension of this project in order to increase the scope of its application.

NURSING: IMAGE IN CONVERSATION

Dr. Helen Simmons, Mental Health Consultant,
Edmonton Board of Health

Interviewed by

Dr. Shirley M. Stinson, Professor, Faculty of Nursing and
Division of Health Services Administration,
University of Alberta, Edmonton.

Over the last decade there has been a great deal of literature written by nurses about nursing. In the interview presented here, an "outsider" looks at nursing. As part of a graduate seminar series, Dr. Helen Simmons, a specialist in human development and a mental health consultant with the Edmonton Board of Health, was interviewed by Dr. Shirley Stinson, Faculty of Nursing, University of Alberta. Dr. Simmons has worked with public health nurses for the last ten years as a consultant and educator. She is an Adjunct Associate Professor in the University of Alberta Faculty of Nursing.

Stinson: In your view of the professions, what if anything is unique about nursing?

Simmons: The particular kind of 'caring' orientation, and caring over time. What is unique about nursing is that caring is the main job, the central and fundamental focus of nursing.¹

Let's put it another way, from the standpoint of the philosophical question, "By virtue of what characteristics would one determine that something is anything?" Amongst the professions, it is into nursing that one would look to demonstrate the characteristics by virtue of which any act could be identified as caring.

Stinson: Do you think that the caring and dedication features apply equally to acute care and public health nursing?

Simmons: Yes, and no. In the public health sector, the nursing profession has as its continuing concern the well-being of the unseparated mass throughout the entire life span; in acute care, the nursing profession has caring as its central and fundamental intention directed only to those who 'solicit' care at any point in the life-span.

Public health nurses have never left the holistic stance, caring for the whole. Perhaps with the general re-popularization of holistic health, acute care nursing will come back to focusing on the whole patient, as opposed to side-saddling the technology.

Stinson: What kinds of educational preparation do you think are needed?

Simmons: Preparation that would bring nurses to *dedication*. I think this is a signal gap in the preparation of today's nurse. Inspiration seems to be missing.

Stinson: And how can that best be approached?

Simmons: For one thing, through history! Granted, it takes a certain amount of dedication before one even becomes interested in history.

In working with public health nurses, I'd say their sense of history is not carrying them. *I'm* more aware of and inspired by their great nursing history than are they. They don't respond to their own history, they never take advantage of it. They do a 'selling job' instead on the basis of their individual personalities. I think, too, that high-powered, inspirational *nursing leadership* could make a difference.

Stinson: What about 'skills' training?

Simmons: Dedication in the absence of competence is at best irrelevant, at worst dangerous. Which skills one selects can make a difference. While there is much talk about conceptualization skills/frameworks, I don't see nurses coming out with frameworks for the job, i.e., frameworks for caring, particularly frameworks that address 'man's essential difference and the difference it makes', frameworks that relate to that difference in a direct and indirect sense.

Stinson: Such as?

Simmons: *Information exchange*, where the human is the subject as well as object.

I think that nurses don't do too badly when it comes to information retrieval, but they do do badly when it comes to information provision and validation, those aspects of information exchange that would allow them to talk in terms of principles, i.e., of 'principled thought.'

Instead, nurses tend to focus largely on action goals and strategies, tasks or solutions. Yet if one is addicted in terms of non-principled thought, one can stumble into contradictions and not know they are contradictions. Perhaps it is this very emphasis on action goals and strategies that gives nurses the reputation of being 'easily led.'

Stinson: What other major skills do you see as being important?

Simmons: Language skills. In our culture there is afoot a general degradation regarding the significance of language, all of which

is part of rejecting the intellectual and reasoned approach as it pertains to human growth and development. So we are, in effect, going against our own human-ness. Like it or not, language is the main tool we have for coming to understand or to being understood.

I don't think nursing has ever placed much value on its language. Yet you nurses do have a language. A 'semantic squeeze' — carrying forward the meaning of nursing — rests in conceptualizing nursing in nursing terms, e.g., caring, holistic, support counselling, advocacy (various terms to do with values underlying nursing). Part of this lack of interest in language is attributable to the university nursing teachers who themselves are not cognizant of the power that is integral to the language of their own domain. If, in their preparation, nurses get some diminished notion of what is carried forward in the language of the profession, it is relatively easy to remain non-cognizant of what the fundamental and central nursing activities presuppose or what they imply, and to readily abandon that language. More importantly, nurses will abandon the ideas and special meanings attached to that language. As an example I would ask, "What does *caring* presuppose and what does it imply?"

If you are committed to understanding nursing and being understood as a nurse *qua* nurse you cannot do that without having an acute awareness of the language of your profession. The language of a profession has to be commodious to its intent, and to use *thing* language for 'human on human' endeavor is to misconstrue, if not be confused about, the intent.

Stinson: What other kinds of educational preparation do you regard as vitally important?

Simmons: *The analysis of nursing as a domain of activity that is critical* (i.e., referred to standards) is long overdue, and the attempts to accomplish that have been up to this point inadequate, haphazard. If you don't know the nature of something, you don't know what flows from it. You'll be overselling it or underselling it, in either case.

Change agency is another area of crucial importance. To regard oneself as a change agent (which I understand is not uncommon in the nursing society) is to insist of yourself that you know the difference, i.e., knowing that change comes about at the interface of difference against difference. You must know whether those differences are different in kind or degree because that is what dictates the range of possibilities for planning, inducing, confronting or maintaining desired change. To me, that's what the

nurse is into constantly, one of those or some combination within the caring perspective — that is the heart of nursing activity. To address change at all requires that one not confuse such terms as 'process' and 'activity' and the fact that the former refers to *thing* behavior while the latter presupposes volition.

Also, *need identification*. I think here again acute care and public health nursing diverge, although I do believe that the shift in acute care nursing back to the 'caring' stance (away from the technology purveyor stance) would bring them back together. But at this moment, need identification or health assessment in public health nursing is carried out in the sense of getting geared up to teach, whereas in acute care it is more in the service of getting geared up to act on the client in some means commensurate with treatment. Both, I suppose, have the preventive concern as central, but in public health it is primary prevention, and in acute care tertiary.

Stinson: Do you, then, not see nurses as being skilled at need identification?

Simmons: The way I see it handled, at this point, has more to do with something akin to brainstorming (and that may insult some people). I also think as I pointed out earlier there is a failure to separate information goals and strategies from action goals and strategies, and I think the failure is primarily in a lack of understanding of the former. I think health assessment ought to proceed along the lines of *knowing what it is you would have to conclude before you would willingly admit that one or another health need obtains*.

Stinson: Could you be more specific?

Simmons: For example, you nurses talk a lot about nursing care plans. So you ask, "What kinds of nursing care plan would I propose if Mr. X is to do his own dialysis at home?" Now, presumably, you would have to conclude that his resources are adequate. That would be the sort of conclusion you would have to make in order to have him go home. So then you say, (1) "What would I have to determine in the case in order for me to conclude that his resources are adequate?" So you set out to answer that question by simply raising the questions, (2) "Answers to what questions would give me that information?" And, (3) "By what means can I best obtain those answers, given the human factors involved?"

Stinson: Let's go back to your statement about nurses' confusion between process and activity.

Simmons: My suspicion is that when nurses talk about the nursing process they are really talking about the nursing activity. And what they proceed to say, using those kinds of words, pertains to standards or criterion-based effort. And that, by definition, is not process but activity. Process is not purposeful, therefore it cannot be anchored in standards. We may *impose* purpose on process, but process itself does not have purpose. The heart happens to circulate the blood — but that's not its purpose.

Stinson: Our interview time is up, Dr. Simmons. I'd just like to say that as an 'outsider' you have shared with us some profound insights about the 'inside' of nursing.

Simmons: My plea to nurses and nursing, as an outsider but a firm believer, is for mankind's sake and your own, know your inestimable worth.

¹ Editor's note: Dr. Simmons's insights in this regard have been incorporated in Sister S. Roach's "Background Paper" for the Canadian Nurses' Association Nursing Ethics project, 1980. (Available from CNA.)

CONCORDIA UNIVERSITY

Department of Nursing Science* requires for the newly reorganized Nursing Department:

requires for the newly reorganized Nursing Department:

i) Director/Professor: **Commencing date** — June 2, 1981, or as soon as possible.

Requirements - Educational: M.Sc.N. essential, Doctorate degree preferred (Ph.D., D.Sc.N. or D. Ed.) French/English bilingualism an asset

Experience: University teaching and administrative experience essential. **Salary & Perquisites:** Salary negotiable within present North American scales.

Concordia offers excellent fringe benefits.

Candidates should apply, sending complete curriculum vitae, with the names, addresses and phone numbers of 3 referees to: Dr. Maurice Cohen, Dean, Division III, Arts and Science, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec H3G 1M8.

ii) Faculty at all ranks:

Educational Qualifications: M.Sc.N. (minimum), Doctorate an advantage, Bilingual (French/English) an advantage.

Experience: 2 years clinical, 2 years teaching, university teaching experience an advantage.

Salary & Perquisites: Commensurate with education, experience. Concordia offers excellent fringe benefits.

Candidates should send their curriculum vitae together with the names, addresses and phone numbers of three referees to: Professor Muriel Uprichard, Ph.D., Health Education/Community Nursing, 7141 Sherbrooke Street West, Montreal, Quebec H4B 1R6.

*Opening Fall, 1981, subject to government approval.

UNIVERSITE CONCORDIA

Le Département de sciences infirmières*, nouvellement réorganisé, recherche:

i) directeur(trice)/professeur. **Entrée en fonction** — le 1er juin 1981, ou dès que possible.

Exigences: Il est essentiel de posséder la maîtrise en sciences infirmières (M.Sc.M.). Le doctorat est préférable (Ph.D., D.Sc.N. ou D.Ed.). Le bilinguisme (français/anglais) constitue un avantage.

Expérience: Il est essentiel de posséder de l'expérience de l'enseignement et de l'administration universitaires.

Traitement: A négocier en conformité avec les échelles nord-américaines en vigueur. L'Université Concordia offre une gamme d'excellents avantages sociaux.

Envoyer son curriculum vitae accompagné des nom, adresse et numéro de téléphone de trois répondants à: M. Maurice Cohen, Ph.D., Doyen de la Division III, Faculté des arts et des sciences, Université Concordia, 2455, boul. de Maisonneuve ouest, Montréal (Québec) H3G 1M8.

ii) Professeurs à tous les rangs. **Titres et qualités:** Au minimum la maîtrise en sciences infirmières (M.Sc.N.). Il est avantageux de posséder le doctorat. Le bilinguisme (anglais/français) constitue un avantage.

Expérience: 2 ans d'expérience clinique. 2 ans d'expérience de l'enseignement universitaire est un atout.

Traitement: Proportionnel aux titres et qualités ainsi qu'à l'expérience. L'Université Concordia offre toute une gamme d'excellents avantages sociaux.

Envoyer son curriculum vitae accompagné des nom, adresse et numéro de téléphone de trois répondants à: Mme Muriel Uprichard, Ph.D. Etudes sur la santé/Soins infirmiers communautaires, 7141, rue Sherbrooke ouest, Montréal, (Québec) H4B 1R6.

*Le Département sera inauguré à l'automne 1981 si le gouvernement l'approuve.



McGILL UNIVERSITY SCHOOL OF NURSING

GRADUATE PROGRAM IN NURSING MASTER OF SCIENCE (APPLIED)

This program has been designed to prepare clinicians and researchers for the expanding function of nursing in our rapidly developing health care services.

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Option A: Clinical Nursing Practice

Option B: Research in Nursing and Health Care

Graduates will be prepared to incorporate either option within careers in the teaching of nursing or the development and management of nursing service.

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Either a Baccalaureate degree in Nursing comparable to B.Sc.(N) or B.N. from McGill; or a Baccalaureate degree comparable to B.A. or B.Sc. offered at McGill.

Length of program

Two years for those with nursing degrees

Three years for those with non-nursing degrees

Language of study: English

Further information from:

Director, School of Nursing
Master's Program
3506 University Street
Montreal, P.Q. H3A 2A7