

FOLLOW-UP OF GENERIC MASTER'S GRADUATES: VIABILITY OF A MODEL OF NURSING IN PRACTICE

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In the early 1970's, on the initiative of Dr. F. Moyra Allen, the School of Nursing at McGill University launched a new educational program at the master's level. It was intended to prepare nurses to assume leadership roles in a rapidly changing health care system. This "generic master's" program is specifically tailored to meet the needs of a particular group of students and to capitalize on their individual competencies and past achievements. The students admitted to this program are non-nursing university graduates of high academic standing with general arts or science degrees, and undergraduate courses in both the physical and social sciences.

This innovative venture in nursing education, unique in Canada, is one of a relatively small group in North America that offer entry to the nursing profession through a non-traditional route (Diers, 1987). The very idea of allowing non-nurses to enter the profession at the master's level has alternately sparked interest and controversy from nurse educators in both Canada and the United States. However, there is no doubt that such programs represent an ingenious attempt to advance the practice of the profession. At McGill, the decision to mount the generic master's program was based on the belief that mature students, with solid academic preparation in the biological or social sciences, would have the potential to contribute to the development of nursing in a unique way. The existing programs vary widely in terms of prerequisites for entry, duration of studies, curriculum design and degree offered (Slavinsky, Diers & Dixon, 1983) and each represents a "special case" in the mainstream of nursing education. Thus, descriptions of individual programs and follow-up research have important implications not only in terms of "in-house" evaluation, but also for guiding the proliferation and development of similar programs in the future. It is with these ideas in mind that the following study was conducted.

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The generic master's program at McGill University is a three-calendar-year program. A description of the curriculum was published during the early stages of its development. (Attridge, Ezer and MacDonald, 1981). The "qualifying" year and second year are each ten months in duration; the third year is a normal seven-month academic session. Clinical placements in the first year and a half are structured by the faculty in order to expose each student to a broad range of field experiences. In the latter half of the program, students proceed to systematic clinical and research study in their own areas of interest. The degree granted is a Master of Science (Applied) in Nursing. The advanced knowledge component of the degree is seen to be in nursing. The absence of a named area of specialization within the degree reflects McGill's Model of Nursing, which does not lend itself to existing traditional fields of specialization.

The model of nursing on which the curriculum of the program is based, was emerging at the same time as this graduate program began. It was an innovative conceptual view of nursing developed by Allen and her colleagues at McGill that emphasized mobilizing strengths or potentials within families and social groups for the promotion of health. This view was markedly different from the more traditional illness-related, physician's assistant or physician-replacement styles of nursing that were then in vogue. In the decade that followed, demonstration projects in both urban and rural settings, as well as further clinical study and research in acute care institutions and in the community have led to the refinement and elaboration of this conceptual view, now known as the McGill Model of Nursing or as the Allen Model (see Gottlieb & Rowat, 1987, Kravitz & Frey, 1989).

Lindeman, in her critique of the model supports the notion that its conceptual definitions constitute a significant departure from the more traditional and well-known models of nursing currently available (Lindeman, 1985).

The central concepts of the model form the core of the curriculum of the generic master's program. Throughout the three years of graduate study, students are encouraged to challenge the traditional view of health as the absence of illness. They are assisted to identify the abilities, potentials and resources present in people undergoing normal transitional events, as well as in those grappling with potentially debilitating crises. They are encouraged to work actively with the family, in order to understand the meaning of an event and its impact on feelings and behaviour. Students are supported by faculty as they carry out nursing interventions that mobilize the resources within the family or social network. They are also assisted to approach the nurse-client relationship as a collaborative venture where the client's input is actively incorporated as an integral part of the nursing assessment, plan and evaluation. Moreover, students are encouraged to work with their caseload of

families over extended periods of time, in order to participate with the client(s) in the process of learning and development. This process is valued as an important and desired outcome of nursing intervention.

Purpose of Study

This study has two main objectives. First, it is an attempt to document the characteristics of incoming university graduates and to track their career paths in nursing following program completion. Secondly, given the strong philosophical orientation of the curriculum and the need to examine the relevance of the McGill Model, it was important that a follow-up study explore the extent to which the model of nursing being taught in the program was evident in the professional practice of the graduates.

Methods

Given the practical difficulties associated with first-hand observation and interview of research subjects, the data about subjects' nursing practice were obtained through self-report. Data were collected through a two-part questionnaire mailed to all graduates of the program. Data collection began in the fall of 1985 and was completed in the summer of 1987. In all, a total of eleven graduating classes were surveyed. Respondents were informed that this was a follow-up study of the program and that anonymity would be assured in the reporting of findings.

Part I of the questionnaire consisted of a series of items regarding the nature of the respondents' undergraduate studies, work experiences prior to admission and reasons for entry to the program. Additional data were collected on their satisfaction with career choice and educational program in nursing, on the nature of their professional practice since graduation and on the degree of their involvement in professional activities.

In Part II of the questionnaire respondents were asked to describe an incident that captured for them the quintessence of nursing. They were asked to include why the incident was important, the context of the situation and the nature of their involvement in it. Qualitative analysis of these data was undertaken in order to determine whether critical elements of the McGill Model of Nursing were evident in the situation that each respondent chose to describe. The process of data analysis was similar to that used by Allen, Frasure-Smith and Gottlieb (1982) and Gottlieb (1982) in their studies of this model of nursing in other settings.

Sixty-two students had completed the program by the end of the data collection period. Fifty-six questionnaires were mailed to those graduates whose whereabouts were known. Forty-eight questionnaires were returned: a response rate of 86%.

Findings

Pre-entry profile of respondents

Seventy-five percent of respondents had a Bachelor of Science degree on entry to the program; twenty-five percent entered with a Bachelor of Arts. Four of the 48 respondents had completed a second university degree prior to entry and eight had begun another program of university studies but chose not to complete it. Sixty-five percent of respondents had achieved a CGPA of between 3.00 and 3.49 (maximum 4) in their undergraduate studies. Eighteen percent had a GPA of between 2.8 and 2.99 and 15% had GPA above 3.5. Fifty-six percent were between the ages of 21 and 23, 25% were between 24 and 26 and 19% were over 26. The mean age at entry was 24.8 years. Seventy-seven percent of entrants were single, 17% were married and had children. Forty-three percent had never been employed full-time prior to entry, while 57% had been employed in a full-time capacity for varying lengths of time. No particular pattern emerged from the data on the nature of past employment.

Post-graduation profile

Nature of employment in nursing practice: The data on employment suggest high employment and retention rates in nursing of these graduates despite reported developmental changes in their family status following graduation. Virtually all graduates were currently employed or about to begin work in the field of nursing. Only one was seeking work. At the time of data collection 69% of respondents had been working two years or less, with a group mean of 1.9 years. Seventy-seven percent of the respondents reported their place of employment as being in-patient services in acute care institutions.

In the breakdown of nursing activities, the majority of respondents (69%) reported spending at least 50% of their time in direct nursing care. Fifteen percent were spending that proportion of time in teaching (not linked to direct patient care), while 10% reported that the greatest proportion of their time was spent in administrative activities. Clearly, the large majority of these master's-prepared nurses were actively engaged in "hands-on" nursing practice.

In examining the constellation within which the nursing takes place - i.e. individual, family, group, or community - 70% of respondents reported spending more than 50% of their time with individual clients. However, it is interesting to note that, while the majority of respondents are employed on hospital wards where working with the individual is an accepted norm, 56% of them report spending 25% or more of their time providing nursing care to families.

Feelings of professional competence: Graduates' feelings of satisfaction with career choice, the extent to which they felt prepared to deal with the demands of their current position, and the extent to which they felt they had been able to use their master's level preparation were each rated on four-point Likert scales. Eighty percent of graduates indicated that they make use of their master's preparation. Seventy-eight percent, reported that they felt well prepared to meet the demands of their current position and 87% felt satisfied with their career choice. There was no significant correlation between satisfaction with career choice and length of time since graduation.

In describing the factors that were felt to contribute to feeling prepared, the model of nursing was clearly important. "The strong focus on families has helped me feel prepared" and "the knowledge about systems and how individual behaviors affect and are affected by them...the ability to teach, to motivate and promote strengths in others" are examples of the comments that the respondents included. Other characteristics fostered in the graduate program - independence, initiative and the ability to articulate ideas - were also seen as contributing to feeling prepared to meet the demands of practice.

A sense of feeling inadequate with regard to technical skills in the acute care settings was described by some graduates, despite the fact that these same respondents may also have reported that they felt well prepared to meet the demands of their current position. "Technically I was somewhat slow, but the graduate preparation taught me to learn how to learn. Hence, within a few months, in terms of technical skills I was functioning at or above the level of others."

By contrast, a small minority of graduates (n=2) did describe their difficulty in attempting to practise nursing in a way that they found satisfying. They perceived their nursing to be directed and limited by the system rather than shaped and developed by their own knowledge and ability.

The conditions of the work environment in a hospital do not allow us the opportunity to apply our knowledge....As a registered nurse working on a medical floor...I am too busy trying to [do] the menial tasks of feeding patients and giving other basic care that I do not have the time and energy to apply what I have learned. What is taught in school is too idealistic to meet the demands of working on a floor.

For these graduates, their educational preparation was not sufficient to arm them with the skills to overcome the many real obstacles that the system can present. Most graduates working as staff nurses had similar responsibilities, therefore the demands of "working on a floor" is clearly not the variable that accounts for these different responses.

Professional involvement: Forty percent of respondents reported membership in professional interest groups and 27% had been engaged in research since completion of their master's study. Only a few graduates reported publications in professional journals. For that subgroup of graduates who had been out of school three years or more (n=12), 40% had been involved in research and 35% cited authorship on one or more publications. In addition, a 5% increase in professional interest group membership was noted for this subgroup of graduates.

The use of the Model in practice

In Part II of the questionnaire, each respondent was asked to describe a critical incident from their nursing. Twenty-eight critical incidents were used in the qualitative analysis. In three cases the data supplied were not examples of the graduate's own practice and consequently were excluded from the data set for this analysis. Some respondents chose to leave Part II unanswered stating that they were not currently involved in direct patient care. The remainder left Part II unanswered but gave no reason why.

The incidents described ranged from relatively simple nursing encounters with one individual or family over a brief period of time to long-standing situations that involved many family members and other professionals. Overall, however, the nurses were describing events that clearly had strong personal and professional meaning.

I was appalled. I could not believe this woman had been hospitalized for 6 days and no one bothered to find out how she or her husband were coping with the situation. I was appalled at this blatant incident of nursing malpractice--as serious as a med error in my book.

Keeping in mind the essential elements of the McGill Model of Nursing, six categories were derived from these data. These were: perspective of the situation, unit of concern, assessment sources, attributes used in the plan of care, time frame for intervention and evaluation. Each category contained two divergent approaches to nursing practice: Type I reflecting the McGill Model and Type II reflecting the more traditional models of practice (see Table 1). The categories that emerged from data analysis were similar to those in the studies by Allen, Frasure-Smith and Gottlieb (1982) and Gottlieb (1982). The category sets are described in Table 1.

In the Type I model, a health-related perspective of the situation is one that involves the client's process of coping, adjusting or learning from events; a process that reflects the complex past and present life experiences of the client(s). A family focus views events as affecting and being affected by more than one person. An exploratory approach to assessment suggests that

Table 1***Approaches to Nursing Practice***

Dimensions of Nursing	Model Type I McGill Model	Model Type II Traditional Model
Perspective of Situation	Health-related (broad view)	Illness-related (contained view)
Unit of concern	Family	Individual
Assessment sources	Exploratory	<i>A priori</i>
Attributes used in plan of care	Potentials	Deficiencies
Time frame for intervention	Client readiness	Professional schedule
Evaluation	Client outcomes	Professional objectives

the nurse has actively sought input from the client(s) to analyze the situation. The strengths, abilities or other positive forces within the individual or family are used in developing a plan of care, and the nurse intervenes when she has confirmed with the client his readiness for a particular intervention. Finally, the nurse uses the responses of the client(s) as the primary data source in evaluating outcomes.

In the opposing Type II model, the nurse perceives the situation as a relatively circumscribed response of the client to a particular illness-related event. The response is directly related to the event and is not affected by past and present life experiences. The focus is clearly on the individual's immediate response. The roles of the family members and "significant others" may be mentioned but are not described as important to or involved in the situation. An *a priori* approach to assessment suggests that the nurse relies primarily on her own or other professionals' existing knowledge and experience to analyze the situation. In developing the plan of care, the emphasis is on overcoming the deficits, gaps or weaknesses within the client and the nurse intervenes according to a professionally derived time frame for action. Finally, nurses use professional judgement as the primary data source in evaluating the outcomes of their interventions.

Independent raters were asked to code the data into one of the two available choices for each category. Interrater reliability was determined by the Kappa statistic, which corrects for possible exaggerations of reliability when only

two options are available for coding each category. (Krippendorff 1980). The Kappa statistic for the categories were: perspective of situation, .66; unit of concern, .64; assessment sources, .64; attributes used in plan of care, .45; time frame for intervention, .55; evaluation, .78.

Looking across each of the six categories, it was possible to determine to what extent each category was coded as either Type I or Type II practice. The Type I model was predominant for each of the six elements approximately 80% of the time (range=75-88%). In an alternate approach to the data, each critical incident was analyzed in order to see which of the two models it reflected. This analysis revealed that 54% of respondents described situations that reflected the Type I model on all six categories. Another 14% reflected use of the model in all but one, while the remaining 32% had a varying number of McGill Model elements in their practices. In no case did any one incident reflect Type II nursing exclusively. Clearly, the graduates were describing clinical situations that reflected Type I practice.

What follows are excerpts from one situation that was rated as Type I on all six categories. The elements of health, family focus, exploratory approach to assessment, care based on working with potentials, interventions based on clients' readiness and using the client outcomes as the data source to evaluate the nursing are all clearly evident in this example.

I held her as the tears burst forth. Mrs. G. began to discuss her concern about her daughters, wondering how they would be able to understand and cope with losing their father. I highlighted for her the many ways she had already described for me how she was helping her children to understand, and what strategies they were apparently using to cope. I encouraged her to bring the children in to visit.

During the next six weeks...Mr. G. found that being around his "girls" helped him to relax and find the drive to work through his feelings....The girls would phone each morning and then come in to visit in the evenings and do their homework. Mrs. G. ensured that the girls' regular extra-curricular activities were maintained (dance, swimming). Both parents expressed concern that their daughters were not talking to them about Mr. G.'s dying, and felt awkward about how to initiate such a conversation. I gave them two annotated bibliographies on broaching the subject of death with children, along with a list of children's books available at the...public library....Both parents found this useful, especially since "researching" on their own fit well with their style of resolving problems.

Three weeks later, Mr. G. was readmitted to the unit to die. While at home he had written a letter to each of his daughters, to be opened

after his death. Despite the hectic work at this time, I set aside several 'breaks' for myself in the day where I would spend brief but attentive visits with Mr. and Mrs. G....I encouraged Mrs. G. to tell me about her husband and the times they had shared, and allowed her to review the last difficult year they had together.

The second week of this final admission I was attending conferences and thus was not on the floor. Knowing that Mr. G. might not be alive when I returned to work, at midweek I went to visit. I reviewed with him our relationship, how at first he didn't think that anyone could cope with dying, how he had risen to the challenge and indeed faced his death "head on" as he had other life crises. I told him how proud I was of him, and for him. Mrs. G. later revealed that he had told her about our conversation and that it had meant a lot to him. When I finally returned to the unit, Mr. G. was alive but not responsive. He died at 9:00 a.m. that morning, just one hour prior to his wife's arrival.

The doctor and myself told Mrs. G. of her husband's death when she arrived on the unit, and provisions were made for a private parting in his room when she was ready. Mrs. G. later sent a beautiful letter thanking the staff, with special mention of the people and actions that had helped her and her family through this crisis.

Possible relationships between the nature of graduates' practices (Type I or Type II) and other variables such as reasons for entry to program, nature of undergraduate degree, time employed in nursing since graduation, career satisfaction, etc. were explored using Chi-square tests. A significant relationship was found only between type of practice and current work setting ($X^2(2, n = 28) = 6.62, p < .05$). Virtually all respondents employed in out-patient settings described clinical incidents that reflected Type I nursing in each of the six categories. It should be noted however, that 46% of those employed in acute care settings also described situations that reflected all or all but one element of Type I nursing.

Discussion

The number of graduates from this generic master's program has maintained an average of approximately 10-12 per year, growing from 62 at the time of data collection to 94 as of June 1989. The findings of this study which indicate high employment rates within nursing and high degrees of satisfaction with career choice and with the educational program, suggest that graduate education as entry level preparation in nursing coupled in this case with a particular set of beliefs about nursing practice, is a viable and personally fulfilling option for academically strong young adults. This is an

important finding in today's climate where low retention rates, dissatisfaction with nursing and decreasing enrollment have been a problem.

Our findings and continued experience suggest that most of our applicants are much younger than first anticipated, and in fact, that they have not been away from academia for any length of time. Marketing and recruitment strategies in nursing have not been specifically directed in the past towards the new university graduate. As we look to recruit leaders and committed individuals to the practice of nursing, we must tap this pool as a resource for nursing and shape our programs to build on the skills and knowledge of these young people.

The study's findings related to the nature of the practice of the graduates supports Slavinsky's observation that "college graduates...stay committed to practise both during their educational experiences and after graduation" (Slavinsky, et al., 1983). The graduates from this program have strongly demonstrated satisfaction as well as competence in giving nursing care, and are clearly not using the graduate degree as a means to move away from the "bedside". On-going data collection following the completion of this study seems to provide continuing evidence of a commitment to the practice dimension of nursing, even as program graduates take positions in ambulatory care or in a community-based practice. There is also a clear indication that graduates are assuming leadership positions in nursing in all areas of practice and, at the same time, are maintaining an active involvement in direct patient care. An important number are pursuing studies at the doctoral level.

The findings in Part II of the questionnaire that indicate that the elements of the McGill Model of Nursing are firmly entrenched in the practice of program graduates are however, the most important feature of the study. Despite the strongly in-patient, hospital-based nature of their current workplace, which reflects the availability of positions for new graduates, it was important to note the relatively high proportion of time that the graduates spent with families. That they are able to generate such a family-based practice in settings where family members arrive only as "visitors" is a significant finding. It indicates that the strong orientation in the curriculum to family-centred nursing practice is one that remains central to their beliefs and values about nursing. Moreover, the significant association found between this model of nursing and the nature of the work setting is an important one. Graduates working in ambulatory setting are reporting Type I practice consistently among all six dimensions. However, the large number of Type I situations (46%) described by those working in acute care environments suggest that Type I nursing is also evident in hospital-based practice, despite the existing illness orientation and professionally driven norms for care of the institution.

In addition, the richness, variety and complexity of the clinical data described in these incidents suggest other recurrent themes that could also be explored. These include the importance of long-term relationships with patients and families, patient advocacy and fostering healthy behaviours during illness. The data also suggest that these nurses were actively engaged in challenging and shaping their colleagues' views on nursing. Thus, leadership roles were being assumed even at the staff nurse level. This suggests that leadership skills cannot be adequately reflected by considering only the position that the graduate holds.

Secondary analyses to pursue these themes would certainly be worthwhile. A follow-up study of the program graduates at the baccalaureate level is currently under way at McGill. In addition, a comparative look at other groups of nursing graduates, such as other master's-prepared nurses, would add needed insight into the practice of nursing at different educational levels.

We have spent considerable time in nursing arguing for a theoretical base for nursing practice, but have been slow to examine and to document whether and how, theory-based practice makes a difference. This is an important question not only for developing nursing theory, but also for nursing education research. To date, educational research has focused heavily on the evaluation of styles of teaching. There has not been an equal attempt to examine how the content of curricula affect outcomes for nursing practice. The questions we should be asking are: Does it make a difference to *practise* if we emphasize to a family-oriented approach? Does it make a difference to *practise* if we define health in broader terms? Does it make a difference to *practise* if we can teach students to work with strengths and abilities? These questions capture the essence of nursing. They must continue to be addressed if we are to demonstrate that nursing has a knowledge base that is unique and that this knowledge makes a real difference in the delivery of care to individuals, families and communities.

This particular study attempted to see whether or not the model of nursing in the curriculum of a generic master's program shapes the practice of the program graduates. The findings indicate strongly that it does.

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RÉSUMÉ

Suivi des diplômées de la maîtrise générique: viabilité d'un modèle de sciences infirmières dans la pratique

Une étude de suivi des diplômées du programme de maîtrise générique de l'École des sciences infirmières de l'Université McGill a été entreprise dans le but d'examiner leur cheminement professionnel et de déterminer dans quelle mesure le modèle d'enseignement des sciences infirmières de McGill se reflétait dans l'exercice de leur profession. Les données ont été réunies par le biais d'un questionnaire qui a été envoyé à toutes les diplômées et dans lequel ces dernières devaient décrire la nature de leur travail, leur cheminement professionnel depuis l'obtention de leur diplôme et leur satisfaction quant à leurs choix professionnels et leur préparation pédagogique. Les répondantes ont par ailleurs été invitées à décrire un incident critique survenu dans le cadre de l'exercice de leur profession et qui, selon elles, représentait la quintessence des sciences infirmières. Les analyses révèlent des taux de rétention élevés en sciences infirmières, un fort degré de participation aux activités directes liées aux soins à prodiguer aux patients et un fort degré de satisfaction quant aux choix professionnels et à la préparation pédagogique. L'analyse qualitative des incidents critiques révèle que les volets santé, famille et exercice collaboratif qui caractérisent le modèle de McGill étaient présents dans les descriptions des répondantes. Les résultats donnent à penser que ce programme unique permet de former un contingent d'infirmières petit mais stable, que celles-ci participent activement aux soins directs et que l'exercice de leur profession témoigne d'un ensemble de croyances non conventionnelles sur la nature des soins infirmiers.