Special Issue: Completed Student Research Projects
Numéro spécial : Projets de recherche achevés réalisés par des étudiants

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The Quality of Student Papers Augurs Well for the Future of Nursing Research

The most challenging and yet undoubtedly most enjoyable part of my job as editor of *CJNR* is putting together an issue of the Journal. Close to 40 issues after my first, I still have a feeling of exhilaration when I'm handed the finished product. I inevitably marvel at how it came to be. Each issue somehow acquires its own flavour even though we follow a similar procedure in crafting every one. There are many factors that affect how an issue takes shape, such as the quality and type of manuscripts received, the state of knowledge in a particular area, funding opportunities, and the talents and resources of our guest editors and reviewers. Against this backdrop we select manuscripts that are both timely and clinically relevant and that meet the highest standards of scholarship.

In putting together this issue devoted to completed student research projects, we followed the same process and the same criteria. Yet I have a heightened sense of exhilaration as we put the finishing touches on this issue of the Journal.

The idea of dedicating an entire issue of *CJNR*, or a special section in each issue, to student research had been tossed around for years. The opportunity presented itself when we decided to change *CJNR*'s publishing schedule (Editorial, September 2002) and to create another issue for this volume. Unfortunately — or fortunately — rescheduling meant that there would be no designated focus topic. Eureka! We decided to have an issue devoted to student research projects. The call for papers was issued in haste and with an abbreviated time frame. We were not sure what to expect.

We were heartened by the response to this call. We received many excellent submissions and, in addition, letters thanking us for the initiative. We had obviously struck a chord and were fulfilling a need among students and their advisors.

Because of the abbreviated time frame, all submissions were internally reviewed by me and by Dr. Anita Gagnon, Associate Editor. We

followed the usual protocol for reviewing and selecting manuscripts for an issue, blinded as to authorship of the manuscript. We critiqued each manuscript independently. Only after completing our own assessment did we meet to discuss the manuscripts, review our critiques, and make the first selection. We used the same criteria to assess and select these submissions as for all the manuscripts we receive: the timeliness and relevance of the topic for nursing, the conceptual and methodological appropriateness, and scientific rigour.

We were mildly surprised but delighted with the quality of the manuscripts. For the most part they were well written despite the 10-page limit we had imposed. Because of the very tight timeline from submission to publication, we allowed authors much less turn-around time than usual to respond to our suggestions and address our concerns. Those who were asked for revisions took up the challenge and, without exception, re-submitted by the requested date. This gave us time to review the re-submitted manuscripts and ask for further revision if needed. We were impressed by how these "young" scholars handled the submission, review, and re-submission process.

The 11 manuscripts published in this issue reflect some recent trends within nursing research. They cover a broad range of topics of concern to the nursing profession. It has long been accepted within the discipline and the profession that the response patterns of individuals and families to health and illness are central to nursing practice and hence nursing research. Many of the papers have this focus, but with a twist. Several of the studies examine patterned responses to health and illness in understudied sub-populations. For example, Gage and Kirk's study focuses on first-time fathers' preparedness for fatherhood, and Irwin, Thorne, and Varcoe examine the motherhood experience of women who have been battered. Some of the papers deal with individual and family responses to medical technology, such as Alexander, Rennick, Carnevale, and Davis's study describing the daily struggles of living with childhood long-term technology dependence. Others examine advances in medical treatment that have transformed the way health care is delivered. For example, Lock and Willson take a look at the information needs of cancer patients receiving chemotherapy in an ambulatory-care setting. Jack, DiCenso, and Lohfeld describe nurses' role in helping to establish a working relationship between paraprofessional home visitors and high-risk families. Another recent trend in the nursing research literature is a return to the issue of understanding nurses. After a hiatus of almost 30 years, the sorely neglected area of understanding the behaviours and attitudes of nurses is once again a subject of interest, as policy-makers and administrators need informa-

tion on how to attract individuals to nursing and how to retain them. Hopkins and Jackson examine the qualities of future nurses in terms of co-dependency or caring. Another trend that has been of concern to nursing is what constitutes culturally appropriate care and how to educate nurses and future nurses accordingly. Moffitt and Wuest's study examines different models of care within nursing education and practice in working with the indigenous population in Canada's Northwest Territories.

These manuscripts also brought home to me what can be accomplished in undergraduate and graduate projects. Such projects are usually "small" and single-authored and must be completed within a limited time frame and a limited budget. Given these parameters, student projects are best suited for pilot work (e.g., Katz and Gagnon's study examining the adequacy of postpartum care for immigrant women), systematic literature reviews (e.g., Guruge and Sidani's meta-analysis of the role of demographic characteristics in preoperative teaching outcomes), the testing of new measures or of established measures in new populations (e.g., McCormick, Naimark, and Tate's study of symptoms in patients waiting for CABS surgery), or the examination of a phenomenon that is not prevalent in the general population but is important in the lives of those people who are dealing with it. These studies are invaluable in identifying critical variables, sensitizing researchers to issues of clinical relevance, providing preliminary empirical support for theoretical ideas, and refocusing and refining questions for study. Few granting agents will invest large sums of money in the absence of preliminary data indicating the validity of the research question. These studies provide such data.

It was heartening as well to see that students are developing knowledge and skill in a wide range of methodologies. No one design predominates. In fact, the studies employed whatever method could best address the research question. This issue is highlighted in Bryanton, Gillam, and Snelgrove-Clarke's Designer's Corner article. This augurs well for the development of nursing knowledge, because nursing requires answers to many types of questions and should not restrict itself by adopting any one method.

It was also apparent from the submissions that the students were being well mentored. Mentoring is one of the most important and gratifying roles in developing the next generation of nurse researchers. The quality of the studies not only attests to the quality of students in nursing but also reflects the quality of the mentoring that they are receiving. To see students involved in their supervisor's program of

research is indeed a new and welcome development in our profession. The opportunities for mentoring have never been greater in terms of both expertise and financial support. We are grateful to Edwards, DiCenso, Degner, O'Brien-Pallas, and Lander, the first nurses to occupy CHSRF and CIHR federally funded chairs, who, in Happenings, outline the training opportunities available to the next generation of nurse scholars.

A wise and highly productive nurse scientist once told me that if you do not publish your study it is as if the study was never done. Unfortunately many studies, particularly those conducted by students, remain in the closet, or on library shelves, known to but a few individuals. Getting students and researchers to publish their work is the last and, for many, most difficult step in the research endeavour. Students run out of steam — and besides, they have already received their reward for completing their research in the form of a degree. Supervisors have usually gone on to mentor and guide new students. In addition, there are few avenues for publishing student projects. We are grateful that students and supervisors took the time to prepare their research studies for publication. We are delighted to have provided a vehicle for disseminating studies conducted by very promising nurse researchers.

Laurie N. Gottlieb
Editor

Daily Struggles: Living With Long-Term Childhood Technology Dependence

Eren Alexander, Janet E. Rennick, Franco Carnevale, and Michael Davis

Les enfants atteints de maladie chronique survivent maintenant plus longtemps grâce aux avancées de la technologie. Cette amélioration du taux de survie s'accompagne d'une augmentation du nombre de familles dispensant des soins à domicile à un enfant présentant des besoins complexes. Dans cette étude fondée sur une théorie à base empirique, nous avons exploré quel effet avait sur les proches le fait de prendre soin à la maison d'un enfant qui a besoin d'un respirateur. Ces familles vivent une expérience de *lutte quotidienne.* Ce combat perpétuel comporte trois dimensions distinctes : *surmonter l'épreuve, se mettre à respirer* et devoir affronter *un événement subséquent.* L'article analyse les implications de ces résultats sur le plan de la pratique et des orientations futures de la recherche en sciences infirmières.

Mots-clés : soins à domicile, respirateur, familles, enfants, étude fondée sur une théorie à base empirique

With advances in technology, children with chronic illnesses are surviving longer. This improved survival rate has resulted in a growing population of families caring for their children with complex needs at home. This grounded theory study explored how caring for a child who requires home ventilation affects family members. Families moved through a process of *struggling daily* as they cared for their child with complex needs. This ongoing struggle was characterized by three distinct dimensions: *getting over the hump, starting to breathe,* and having to deal with a *subsequent event.* Implications for practice and future directions for nursing research are discussed.

Keywords: technology dependence, home ventilation, family functioning, children, grounded theory

With advances in medical technology, children with chronic illnesses are surviving longer. This improved survival rate has resulted in a

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growing population of families caring for their children with complex needs at home (Patterson, Leonard, & Titus, 1992). A large number of these children are dependent on ventilators. The experience of families caring for their ventilator-dependent children at home was the focus of this study.

Literature Review

Few studies have focused specifically on the experiences of families with ventilator-dependent children at home. However, the literature does suggest that caring for a child with complex needs has important financial, psychological, physical, and social consequences. Indeed, all facets of family life may be affected. The demands of caregiving can isolate families from sources of support. Caregivers of technology-dependent children report less interaction with family and friends because of their child's illness (O'Brien, 2001).

The constant demands associated with caregiving can adversely affect the physical and mental health of caregivers (Patterson et al., 1992). Financial issues are also a common concern for these families and a further source of strain (Thyen, Kuhlthau, & Perrin, 1999). Alteration of normal family functioning can have a negative impact on the family's quality of life (Baumgardner & Burtea, 1998).

The few studies that have been conducted raise numerous concerns about this population and point to important gaps in the literature. The majority of available studies did not focus solely on the concerns of families caring for ventilator-dependent children. Many were cross-sectional surveys assessing the needs of this population. Further exploration using a qualitative approach would enrich the level of knowledge in this area.

Purpose

The purpose of this study was to enhance our understanding of how caring for a child who requires home ventilation affects family members. The specific aims were to explore the perceptions of family members caring for these children and to describe the impact on the family.

Method

Grounded theory was chosen as the methodology for the study. Grounded theory produces a theoretical model of the subjective expe-

rience of a particular phenomenon and the process of managing the phenomenon in a specific context (Kearney, 1998).

Key Informants

Families were recruited through the home-ventilation program of a metropolitan pediatric hospital. Theoretical sampling consistent with the chosen methodology continued until further data collection yielded no new theoretical material (Kearney, 1998). The five families selected for the study had children who required a ventilator or a positive airway pressure device at home. The children's ages ranged from 8 to 16 years. The children fell into two diagnostic groups: those with respiratory illnesses such as central hypoventilation syndrome, a rare disorder affecting the central control of breathing, and those with neuromuscular disorders requiring ventilation support due to respiratory muscle weakness. Both of these groups have a long-term need for this type of technology.

Families were eligible for inclusion if they had been managing the care of their child at home for more than 1 year, if their child was medically stable at the time of the study, and if family members were able to speak English or French.

The primary physician approached families who met these criteria and asked them if they would like to learn more about the study. If families wished to learn more, they were contacted by the researcher, who was clearly differentiated from the care providers to reassure families that their decision whether to participate would not affect the care they received. The purpose of the study was explained, as were the measures taken to ensure anonymity. Once the families had agreed to participate, an interview was arranged in their home. Families who lived more than 50 kilometres from the referral centre were interviewed when their child was hospitalized for a check up. The interviews with family members were audiotaped after written consent to do so was obtained.

Data Collection and Analysis

Preliminary data such as the child's recent hospitalizations and previous surgical procedures were obtained from the hospital's computer database. Participant observation of family interaction and the home environment were an integral part of data collection. Family experiences were explored using a semi-structured interview technique. The data obtained related to the impact of caring for a technologically

dependent child, the concerns of family members, coping strategies employed to manage daily life, the type of care provided, the use of external resources, and an account of their experiences. Interviews varied in duration from 1 to 3 hours.

The criteria of credibility, confirmability, meaning in context, saturation, transferability, and recurrent patterning were used to evaluate the rigour of this study (Leninger, 1994). Verbatim transcription of data and thick descriptions of data, sample, and setting enhanced the rigour of the study. Emerging themes were validated in subsequent interviews and theoretical sampling continued until saturation was achieved.

Data analysis was conducted concurrently with data collection. Audiotapes were transcribed verbatim as soon as possible after data collection. Family genograms and observations were recorded in the form of field notes. Initially the transcripts were examined line by line and concepts identified. The identified concepts were continually compared with prior data and similar concepts were grouped into larger categories. Theoretical hunches and preliminary diagrams were developed. Commonalities and differences across families were examined. A process that reflected the cyclical experience of these families was identified.

Findings

A central theme of *struggling daily* characterized the experience of the families. Parents described their experience as a "battle" or a "fight" and emphasized that this struggle was a part of daily life. One mother stated: "It is a fight every day. You solve a problem, then there is always something else." Struggling daily was a continuous cyclical process that began when the child was taken home from the hospital. Three distinct dimensions of the struggle were identified: *getting over the hump, starting to breathe,* and *dealing with a subsequent event.* Additional findings related to the challenges faced by the families, the resulting sentiments, and coping strategies employed to manage these challenges are described elsewhere (Alexander, 2002).

The families described *getting over the hump* as an overwhelming and difficult process. One mother told of collapsing in a heap on the bathroom floor and crying because she felt so overwhelmed by it all. One father stated:

> *So you have to change diapers, refill the milk, monitor the parameters in case he desaturates — you may need to suction. We had him at home for a year without a nurse. It was impossible. You can't work. Doing the night [and] working during the day. It can't be done.*

The families moved through this difficult time by learning how to care for their child and how to manage their situation successfully. One mother said: "Everything looks like a huge mountain when you are first told, and after that you have to take it in stride and keep going." The families then moved into a period of relative stability. This was a time when they could start to breathe. The struggle was described as less intense and more manageable. One mother stated: "We are *starting to breathe*. Before this, things were going a little less well. When you think that you are buying diapers at [age] 13…the point when you don't bring the diaper bag with you, you are happy." Another mother stated: "The first few years were hard. Then, after that, you get to the point where it just plateaus a little bit."

The families remained in this period of relative stability until a new problem arose and they were faced with having to manage the situation with renewed intensity. The precipitating event could be an illness, a change in family structure, or a developmental milestone. A mother described her feelings when her child caught a cold:

> *Our stomach would be in knots because he has plugs — his lungs would collapse. This is the first time since September we can actually relax a bit. If he starts to get something our stomachs are in knots. We are feeling like we are literally going to get sick.*

Another mother spoke of her concerns as her child approached adolescence:

> *Maybe at some point she'll be interested in a boy and because she is the way she is the boy won't be interested. My son…there are girls around and some of them he finds attractive; if they don't want anything to do with him, he doesn't have to wonder if it's because he's different from the others. She will have that. Growing older, adolescence, it's going to be a little more difficult.*

The findings of this study reflect the complex nature of the families' experiences. All the families interviewed described the same process, although there was variation in terms of length of time spent in each phase of the cycle. Additionally, their experiences appeared to be profoundly influenced by three intervening conditions: the accessibility and availability of formal resources, the involvement of family and friends, and the family's socio-economic status.

Discussion

The findings of this study support the notion that the concerns of families living with long-term technology dependence are similar to those

of families managing other chronic illnesses requiring complex home care. The findings also reveal important differences in how the process of struggling daily unfolds for such families.

The families moved into a period of relative stability by learning how to manage the struggles inherent in caring for their child. Although this period was characterized by the absence of change, the daily struggle clearly continued. The notion of a period of stability is not new. In Steele's (2000) exploration of the experiences of families caring for children with life-threatening neurodegenerative illnesses, the primary goal identified by the families was to maintain the periods of stability. O'Brien (2001) reports similar findings: the identified goal of families caring for children with various types of technology dependence was to achieve stability in the face of constant change and unpredictability. In Gravelle's (1997) study with families of children with progressive life-threatening illnesses during the complex chronic phase, the families moved through a series of successive hardships by defining adversity and then managing it. Thus, in spite of differences in study population and illness trajectories, the sense of ongoing struggle inherent in the daily lives of these families is congruent with the findings of the current study.

The findings of this study have implications for nursing practice. The continuous, cyclical nature of the daily struggles inherent in caring for a child with complex needs suggests the need for ongoing assessment of the family. Even when families are *over the hump*, they may require help in addressing ongoing issues, as well as guidance and support when changes can be anticipated such as the transition to adolescence. An understanding of the process these families go through would also assist nurses in preparing families who are just beginning this journey. An awareness of intervening conditions that may influence their experiences would enable nurses to target particularly vulnerable families.

Family, learning, collaboration, and health are central features of the McGill Model of Nursing (Gottlieb & Rowat, 1987). In the present study, families shared their experiences of learning to meet the challenges of caring for their child with complex needs. The process of learning moved the families *over the hump* to a period of relative stability. They then had to learn anew in order to adjust to subsequent changes. In the McGill Model, the family is the unit of concern and learning takes place within the context of the family. The findings of the present study support this conceptualization. Changes in the health of one family member affected all family members.

Limitations

The design precluded analysis of differences within families since family members were interviewed together. In addition, in two cases only one parent was available. These aspects of the study limit the scope and transferability of the results.

Future Directions

This study provides new insight into the experiences of families caring for their ventilator-dependent children at home. Further study of the cyclical nature of the experiences of such families is indicated. A longitudinal approach would provide further information about how the process of struggling daily changes over time. In addition, an examination of how this process applies to families caring for children with other types of technology dependence is warranted. Lastly, a design that incorporates both individual and family interviews may reveal differences not explored here.

It is likely that the number of families caring for technology-dependent children at home will continue to rise as a result of medical advances and a continued emphasis on transferring care to the community. Increased knowledge and understanding of the ongoing struggles of these families is vital if we are to meet the challenges that lie ahead.

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Authors' Note

First-Time Fathers: Perceptions of Preparedness for Fatherhood

Jeffrey D. Gage and Ray Kirk

On connaît peu de choses sur la façon dont les hommes se préparent à devenir pères. Nous avons entrepris une étude phénoménologique dans le but de décrire les perceptions des nouveaux pères relativement à la transition vers la fonction parentale et à leur degré de préparation. Dix-neuf pères éventuels et nouveaux ont participé à quatre groupes de discussions dans le but de décrire l'expérience unique que vivent les hommes quand ils se préparent à leur nouveau rôle. Quinze thèmes au total se dégagent des discussions : la réalité de la grossesse; la préparation sur les plans physique, émotionnel et financier; les relations avec les amis, les beaux-parents et les professionnels de la santé. Les auteurs passent ces thèmes en revue et concluent que les participants se sont préparés activement, en tentant de s'ajuster aux nouvelles attentes qu'ils percevaient et en cherchant à se renseigner sur la façon d'être un bon père. Ces résultats contribuent à nos connaissances sur le comportement des nouveaux pères et à la recherche sur le sujet. Le fait pour les pères d'être préparés adéquatement a le potentiel de rehausser la santé de la mère, de l'enfant et de la famille.

Mots clés : nouveaux pères, préparation, fonction parentale

Little is known about how men prepare to become fathers. The purpose of this phenomenological study was to describe first-time fathers' perceptions of preparedness for and the transition to parenthood. Nineteen prospective and new fathers participating in 4 focus groups described the unique experiences of men as they prepared to become fathers. A total of 15 themes emerged from the data. The authors discuss themes in the transition to fatherhood — the reality of the pregnancy; physical, emotional, and financial preparation; and relationships with friends, parents-in-law, and health professionals — and conclude that the participants actively prepared for fatherhood, attempted to adjust to the perceived expectations of their new role, and sought information on how to be a good father. These results contribute to our understanding of behaviour among new fathers and to the body of research on fathering. Appropriate preparation for fatherhood has the potential to enhance maternal, child, and family health.

Keywords: first-time fathers, preparation, parenting

Background

International concern for the well-being of children as a result of parental influence is becoming more explicit. Although parenting

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research has traditionally focused on mothers, the role of fathers and their influence on family health is receiving increased attention (Barclay, Donovan, & Genovese, 1996; Boehm, Duggan, Dinerman, & McGowan, 1995; De Luccie, 1996; Watson, Watson, Wetzel, Bader, & Talbot, 1995).

An involved father can be the primary support person for his partner during pregnancy, contribute to the social and cognitive development of his children, and mitigate adverse health and social outcomes in his children's lives (Hoghughi, 1998; McBride & Darragh, 1995; Nugent, 1991). A man's potential to become an involved, nurturing father is influenced by prior learning experiences, developmental readiness, and means of support (Hall, 1992; Shapiro, 1987).

Little is known however, about men's perceptions of the role of fathering, or their unique capacity to prepare for and make the transition to this new role. Although men and women become parents at the same time, they do not become parents in the same way (Watson et al., 1995). If we are to promote positive fatherhood through effective preparation for parenting, it is important for us to understand these differences from the perspective of men themselves.

Method

This study was conducted in Christchurch, New Zealand, utilizing a sample of convenience after approval had been received from the regional ethics committee. Prospective and recent first-time fathers who had enrolled in prenatal education classes were invited by letter to participate. Exclusion criteria applied to men who were not prospective or recent first-time fathers, men who were non-English speaking, and men for whom the birth event was seriously complicated in outcome.

This phenomenological study was concerned with describing the lived experiences of first-time fathers as they prepared to become parents. The focus group method was particularly useful in being able to generate the stories, opinions, and perceptions of men involved with the phenomenon of new parenting. The rich insights brought out through discussion and interaction might not have been possible with other research methods, such as individual interviews or written or oral surveys.

Four focus groups were conducted ($N = 19$), two with prospective first-time fathers and two with recent first-time fathers (infants aged 3–6 months) who had enrolled in or attended prenatal education classes. The discussion was semi-structured based on six core questions about fathering:

1. What will it mean to you to become a father? What did it mean to you to become a father?

2. What things are you doing to prepare for the birth of your baby? What things did you do to prepare for the birth of your baby?

3. How well prepared are you to become a father? How well prepared were you to become a father?

4. How do you learn to be a good father? How did you learn to be a good father?

5. How do you think relationships will change after the birth of your baby? How did relationships change after the birth of your baby?

6. What can make it difficult to be a father? What made it difficult to be a father? What made it easier?

Data Analysis

A thematic analysis was undertaken following a sequential process to identify specific patterns and themes (Kingry, Tiedje, & Friedman, 1990). Key ideas were extracted from the written notes and audiotapes for each group. Categories were formulated for each question, for the two groups of prospective fathers, and for the two groups of recent fathers. The categories from both sets of groups were clustered in order to identify each within a common theme. Supporting quotes were assigned to each category.

Validity in qualitative research can be determined on the basis of whether the method measures what it proposes to measure and whether the results are credible (Krueger, 1994). We attempted to ensure the validity of our results by following established procedures for focus group interviews: preparing questions that were based on the literature and that progressed from general to specific, using a skilful moderating technique, ensuring that the moderator and assistant worked as a team, and analyzing and presenting results in a systematic and verifiable way (Kingry et al., 1990; Krueger; Sim, 1998). The same questions were posed in each group, and data collection continued until saturation of opinions was reached and no new ideas were articulated. In addition, each participant was given the opportunity to clarify, amend, or add comments prior to the conclusion of each focus group.

Participants

The 19 participants ranged in age from 25 to 44 years. Seventeen men indicated their ethnicity to be European and two New Zealand Maori.

Seventeen men were employed full-time ($n = 17$) and two part-time. Two men earned less than (NZ) $33,000 and 13 in excess of (NZ) $51,000 per year. Eighteen men were married and 17 men indicated that the pregnancy was a planned event; the length of the relationship ranged from 3 years to more than 10 years. The mean age for the babies of recent fathers was 10 weeks.

Results

The Reality of Becoming a Father

In response to the first question, what it meant to become a father, the men talked about how they came to acknowledge the reality of the pregnancy and the implications for them beyond the birth. It took longer for the men to acknowledge the reality of parenthood than it did for their partners: "As the time got closer, the reality seemed to hit. It didn't seem like a reality for a long time." The reality of fatherhood increased as the pregnancy progressed. The men began to think about the longer-term implications: "If you buy a new car you might get the manual for a couple of months and read up how it all works — you don't get that, you just have to wing it."

The growing reality of their situation also stimulated thinking about the increased responsibilities of being a father. One prospective father had changed his behaviour as he reflected on becoming a father:

> *I went down to the store the other night and I thought, shit, I didn't have my seatbelt on, and I thought, hell, if I was to go through the window... that's your father gone; that kid would grow up without a father.*

Physical Preparation

When the men discussed the things they were doing to prepare for the birth, physical preparation was a priority. Most men took an active role in the preparation of their home: "I've had the room set up for months." Other men said they planned to complete house renovations prior to the baby's arrival, planned to get a bigger car to accommodate a larger family, or made sure that the car was filled with gas and made "trial runs" to the hospital.

Emotional Preparation

In response to the question about how well prepared they were to become fathers, the men made comments about their emotional preparation:

Physically we've done everything we need to, but mentally, you know, we haven't really. We've been too busy getting all the physical stuff done...and haven't thought much about actually being a dad...past the labour and the birth.

The men expressed a desire to nurture their emotional relationships with their children. One father expressed it in the following way: "I don't remember my father saying, 'I love you'... I hope to show a bit more of my emotions, like saying to a son, "Hey, man, I love you'."

The men acknowledged the expectation in today's society for fathers to demonstrate more emotion towards their children. They hoped they would be able to live up to this expectation. Some thought that by having children they could bridge the emotional gap between themselves and their own fathers.

Financial Preparation

Financial stress caused by the possibility of reducing their income to one wage was a concern for most of the men: "We saved as much of my wife's wage as we could in preparation before she finished work." The focus of this discussion had implications for their choice of infant feeding method: "If you choose to breastfeed it really only leaves one person left to work"; "We're taking another approach...expressing the milk, so that means [wife's name] can carry on with her career." Some prospective fathers anticipated that flexibility in their employment would be required if the couple chose to breastfeed. Reducing to one job would make breastfeeding a more convenient option, but the loss of income would add to the financial stress.

Relationships

Most of the fathers believed that their relationships with friends, parents-in-law, and health professionals had undergone considerable change prior to and after the birth. Some of these changes were stressful while others were a source of support as the men made the transition to new social networks.

Friends. Some of the men said that their strong friendships had not changed, while others indicated that their relationships with childless friends had become strained: "Some friends would say to come over but don't bring the baby...it's like saying come over but don't bring your right arm."

Figure 1 *The Transition to Fatherhood*
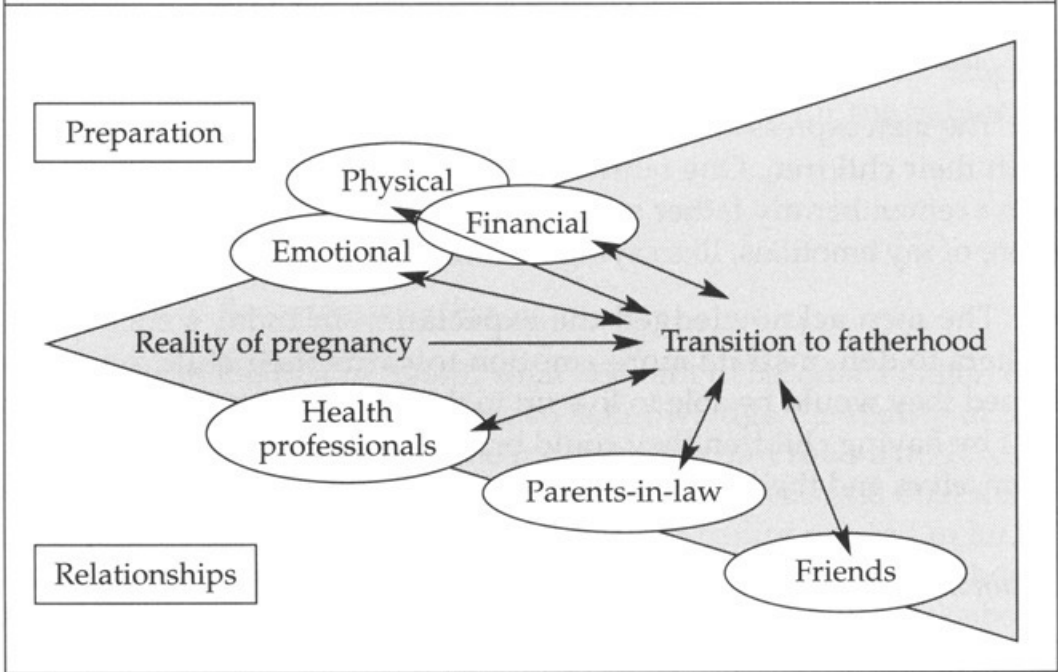
Some of the new fathers said that tiredness had lessened their enthusiasm for entertaining but that they were developing friendships with other new parents. Other men anticipated that less time would be available so they reduced or ceased their sporting commitments prior to the birth. Some of these commitments had occupied a large amount of time, which they now considered less important than the time spent with their wife and baby.

Parents-in-law. Parents-in-law could be both supportive and critical. Some couples were determined to begin parenting by establishing their own independence: "My wife is very careful to make sure it's her child before it's their grandchild." One man said:

> I put my foot down and I said, "Excuse me, I'm the father. I'll be choosing the name... me and my wife will be choosing it, not you. You had your chance when your baby was born."

While parents-in-law could also be supportive during the transition to new parenting, the men enjoyed the opportunity to begin their fathering role by making their decisions together with their partner as a couple.

Health professionals. The men received well-intentioned advice from health professionals, but in some situations this contributed to an already stressful time for new fathers: "Every professional has good

advice that slightly conflicts... I respected the advice of people who gave me the option"; "It's amazing...the pregnancy police are everywhere, every corner — it's incredible."

The men were more likely to listen to the advice of health professionals in the early stages of the pregnancy. The credibility of the advice was measured partly on the basis of whether the professional had personal childrearing experience. Nearer to the time of the birth the men expressed a desire to become increasingly more independent in their decision-making.

Discussion

This study describes the preparation of men for parenting through the experiences of prospective and recent first-time fathers. Analysis of the results indicates that the transition to fatherhood is influenced by multiple preparation strategies and relationships. This transition is depicted in Figure 1.

As the pregnancy progressed, the reality of becoming a father increased for the participants. The men actively prepared for parenting, physically, financially, and emotionally. These themes were interrelated in that they influenced the decision-making processes of each couple — for example, that of choosing an infant feeding method. The men's relationships with their friends, their parents-in-law, and health professionals also influenced their transition to fatherhood, but these relationships were generally not interrelated.

The participants in this study were actively preparing for fatherhood. This finding is consistent with those of other studies indicating that men choose to be "instrumental" during the pregnancy, focusing on specific tasks (Ferketich & Mercer, 1995; May, 1980). Interestingly, the methods they described for doing so might well have gone unnoticed. This indicates that the phenomenon of fathering preparation is not well understood.

The influences that the men perceived as affecting their ability to become involved fathers, as well as their actions and responses to new roles, may be underestimated. Holland (1994) found that becoming a father is likely to increase one's sense of awareness and responsibility. Some men in the present study indicated that they had developed a heightened sense of responsibility during the pregnancy, and altered their health behaviour as a result. The man who decided to buckle his seatbelt when going to the store is one example. This might indicate that a partner's pregnancy makes young men more receptive to health-

promotion messages. This could be an opportune time to promote positive health behaviour for men, as well as for mothers and infants.

The participants described their experiences of the pregnancy to be less real for them, in the early stages, than for their partner. The literature suggests that it is not uncommon for men to be less developmentally ready for parenthood than their partner (Shapiro, 1987), for mothers to embrace their new role more than fathers (Alexander & Higgins, 1993), and for pregnancy to be a time of transition for men as they seek to define their identity and sense of self (Barclay et al., 1996; Jordan, 1990). The men in the present study did, however, actively seek information about fathering, in addition to what they learned about the labour and birth process in prenatal education. As a professional group, nurses need to engage in research to assess strategies for imparting information to men in ways and at times that more adequately meet their needs as they prepare for fathering.

In addition, nurses should be aware that the promotion of father involvement can be beneficial for pregnant women and their babies — for example, in the areas of social support, breastfeeding, and smoking cessation (Bar-Yam, 1997; Haug, Aaro, & Fugelli, 1992; Mermelstein, Cohen, Lichtenstein, Baer, & Kamarck, 1986). The participants in this study intended to make joint parenting decisions and to be actively involved in the parenting process, before and after the birth. The results indicate that there is a need to engage fathers in the prenatal care of the mother and infant, and that fathers, too, have unique needs as they prepare to become parents.

Conclusion

This study describes some unique insights into the experiences of men as they prepare for parenting and highlights specific influences on the process of preparing young men for future life roles. Further research is required to explicate the role of new fathers and their potential to influence their own health and the health of their families.

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Effects of Demographic Characteristics on Preoperative Teaching Outcomes: A Meta-analysis

Sepali Guruge and Souraya Sidani

L'éducation du patient fait partie intégrante de la pratique infirmière. Depuis les années 60, de nombreuses études pilotes et plusieurs méta-analyses ont évalué l'efficacité de l'éducation donnée aux patients se préparant à subir une chirurgie. Bien que ces études attestent de la valeur de l'éducation préopératoire pour le patient « moyen », elles consacrent peu d'attention à la représentativité de l'échantillon et à la généralisabilité des résultats. C'est pourquoi nous avons effectué une méta-analyse de 20 études dans le but de cerner les caractéristiques démographiques des patients ayant participé à celles-ci et de déterminer les variations relatives à la durée du séjour à l'hôpital et à la réponse au traitement de la douleur en fonction de l'âge, de l'origine ethnique, du sexe et du niveau de scolarité. Les résultats confirment les effets positifs modérés de l'éducation préopératoire. Toutefois, il faut souligner que les participants à ces études étaient pour la plupart des femmes de race blanche âgées de 41 à 60 ans et ayant un niveau de scolarité post-secondaire. Les résultats obtenus ne sont donc pas généralisables à l'ensemble des patients se préparant à subir une chirurgie. Il apparaît donc nécessaire de dispenser une éducation post-opératoire taillée sur mesure et évaluée en fonction de la pratique quotidienne, ainsi que d'entreprendre des études visant à examiner l'influence des caractéristiques démographiques, en particulier le niveau de scolarité et l'origine ethnique, sur les résultats découlant de l'éducation préopératoire.

Mots clés : éducation préopératoire, méta-analyse, caractéristiques démographiques

Patient education is an integral part of nursing practice. Since the 1960s many primary studies and several meta-analyses have been conducted to assess the effectiveness of education for patients undergoing surgery. Although these studies demonstrate that preoperative teaching is beneficial to the "average" patient, they have paid little attention to the representativeness of the sample and the generalizability of the results. Therefore, a meta-analysis of 20 studies was conducted to identify the demographic characteristics of patients who participated in preoperative teaching effectiveness studies, and to assess variation in length of hospital stay and pain outcomes in relation to age, ethnicity, gender, and education. The findings confirm the positive and moderate effects of preoperative teaching on these outcomes. However, the participants were primarily 41–60-year-old white females educated beyond the secondary level. Therefore, the findings are not generalizable to all patients undergoing surgery. This points to the need for preoperative teaching that is individually tailored and evaluated in everyday practice and for studies that examine the influence of demographic characteristics, particularly education and ethnicity, on the outcomes of preoperative teaching.

Keywords: preoperative teaching, postoperative outcomes, meta-analysis, demographic characteristics

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Patient education is an integral part of nursing practice. Although this topic has been addressed extensively in the nursing literature, research specifically on preoperative teaching commenced only in the 1960s. Many studies have been conducted since then to assess the effectiveness of preoperative patient education. In addition, several meta-analytic studies have confirmed the following outcomes: decreased fear and anxiety (Hathaway, 1986), increased patient satisfaction with care (Devine & Cook, 1986; Hathaway), improvement in physiological variables such as vital capacity and pulmonary function (Hathaway), decreased length of stay (Devine & Cook, 1986; Hathaway), and decreased pain and postoperative complications (Devine, 1992; Devine & Cook, 1986).

Although both the individual studies and the meta-analyses demonstrate that preoperative education, in general, is beneficial to the "average" patient, little attention appears to have been given in such studies to the representativeness of the sample and the generalizability of the results to all patients undergoing surgery. Patients seen in everyday practice vary in age, gender, and educational and ethnocultural background, and these demographic characteristics influence their responses to interventions such as preoperative education (Sidani & Braden, 1998). Therefore, the results of preoperative teaching effectiveness studies based on people with particular demographic characteristics may not be applicable, appropriate, or generalizable to all patients. In order to determine the target population to which the results of these studies can be generalized, the following research questions were explored: (1) *What were the ages, genders, levels of education, and ethnic backgrounds of patients who participated in studies of the effectiveness of preoperative education on the postoperative outcomes of length of hospital stay (LOS) and pain?* and (2) *What effects do the selected demographic characteristics have on these two postoperative outcomes?*

Literature Review

Preoperative teaching is defined as providing patients with information about the perioperative experience (Hathaway, 1986). Its effectiveness is measured by changes that are indicative of improvement in the patient's condition in the period following surgery (Devine, 1992). The most commonly measured postoperative outcomes are LOS and pain. LOS is defined as the "number of days the patient remained in hospital, starting the day following surgery and up to and including the day of discharge" (Spalding, 1995, p. 528). Pain is described as "an unpleas-

ant sensory and emotional experience associated with actual or potential tissue damage" (Merskey & Bogduk, 1994, p. 210).

Demographic characteristics are the personal attributes of patients that may influence the effectiveness of preoperative education in achieving the desired outcomes. Of the various demographic characteristics that influence the outcomes of health-related interventions, age, gender, level of education, and ethnicity were of interest in this meta-analysis. It has been suggested that age directly or indirectly affects intervention outcomes (Sidani & Braden, 1998). Brown (1992) found a statistically significant inverse relationship between age and knowledge outcomes among patients with diabetes receiving psychoeducational interventions. In terms of gender, health-care interventions based on studies with men exclusively may not be effective for women in general, women of different age groups, or women from different ethnic and cultural backgrounds. For example, Richardson, Evans, and Warner's (1994) study of the effect of written information on the perception of pain during electromyography found that providing information about the test "significantly decreased pain perception for women during the nerve conduction studies, but not during the needle examination" (p. 671). A similar effect was not observed in men. The study also found that women perceived the test as more painful than men.

Individuals vary in their learning needs, learning patterns, and educational levels. Stephens (1992) points out that a discrepancy exists between the reading level of the average adult, which is between grades 5 and 8, and the reading level of health-related printed material, which is between grades 8 and 12. Individuals also vary in their knowledge and comprehension of English; therefore, preoperative information delivered in English may not be equally effective for everyone. In addition, during the last two decades the diversity of the ethnic composition of the Canadian population has increased, requiring the adoption of culturally congruent care in nursing. Culture and ethnicity shape people's view of health and illness, health-seeking behaviours, use of health-care services, selection of and adherence to a treatment modality, and treatment expectations (Leininger, 1991). Further, there may be variations within ethnic and cultural groups due to factors such as age, gender, educational level, place of birth, and religious affiliation.

In terms of the possible effect of demographic characteristics on the outcomes of preoperative *psychoeducational* interventions, Mumford, Schlesinger, and Glass (1982) observe that patients cope with emotional and physical stress differently; they may benefit most from interven-

tions that complement their particular coping styles, which could explain the increased effectiveness of *psychoeducational* interventions in comparison to *education* alone. Psychoeducational interventions include both educational (e.g., preoperative teaching) and psychological interventions. Suls and Wan (1989) found that the confidence intervals for some comparisons included negative effects sizes (ES) and therefore concluded that *preoperative teaching* should not be considered universally helpful, despite the average positive ES. Devine and Cook (1986) examined the generalizability of the cost-related effects of preoperative *psychoeducational* interventions as indicated by LOS and incidence of medical complications in 50 studies. The 18–40-year-old group had an ES of +0.61 (*SD* = 0.34), the 41–50-year-old group an ES of +0.43 (*SD* = 0.34), and the 51–70-year-old group an ES of +0.63, but with a large *SD* of 0.67. These results demonstrate that the effectiveness of preoperative *psychoeducational* interventions can vary with the patient's age. In terms of the influence of gender, Devine and Cook (1986) found that the all-male group had an ES of 0.33 (*SD* = 0.30) and the all-female group an ES of 0.60 (*SD* = 0.40). The effectiveness of *psychoeducational* interventions clearly varied according to gender. However, none of the meta-analyses examined the impact of age, gender, education, and ethnicity on the outcomes of *preoperative education*.

Methods

Studies that evaluated the effects of *preoperative education* (as compared to psychoeducational interventions), were written in English, and were published between 1956 and 1997 were considered. Reference lists of previous meta-analyses that captured primary studies between 1956 and 1989 were examined manually for individual studies that could be included in this meta-analysis. A computerized search of the databases CINAHL, MEDLINE, and HEALTH STAR was carried out using a combination of the words *preoperative, education,* and *teaching* for the period 1989 to 1997. The second set of studies (those published between 1989 and 1997) were not examined in any known meta-analyses. The inclusion criteria were studies that: (a) examined the effects of preoperative teaching on postoperative outcomes of LOS and pain, (b) sampled adults undergoing surgery or invasive diagnostic procedures, (c) consisted of an experimental design that compared a preoperative teaching intervention group to a control group that received no preoperative education, and (d) used the same setting for the experimental and control groups.

Data analysis consisted of both descriptive and quantitative syntheses. For the descriptive synthesis, a table was used to code and extract data on publication information, study design, sample size, and quality of the study, as well as preoperative teaching, postoperative outcomes, and demographic characteristics. Quality was measured on the following bases: design, sampling method, presence of a control group, method of assignment to groups, response rate, attrition rate, and threats to internal validity (i.e., history, maturation, mortality, interactions with selection, and diffusion of the treatments [Burns & Grove, 2001]). The data obtained in this manner were categorized into percentages or frequencies. Measures of central tendency reported in each study were used to represent continuous variables reflecting its sample demographic characteristics. For categorical variables, the modal category with the largest percentage was used. With regard to the outcome variables, information that is needed to calculate ES, such as sample size, mean, and *SD* of the experimental and control groups, was extracted. When no information could be derived from the individual studies in order to calculate ES values, the direction of the outcome as reported in the individual studies was considered.

The quantitative synthesis consisted of a frequency count and statistical approach. The frequency count approach was used as a preliminary strategy in identifying patterns occurring as a result of the effects of the demographic characteristics on the outcomes of preoperative teaching. This approach permitted the inclusion of all the studies reviewed, including those that did not provide the information needed to calculate an ES. The procedure for this approach included a tabulation of the categories of each demographic variable against the categories of the statistical significance of each outcome variable. Comparisons of the frequency count across the cells in the table formed the basis of a preliminary strategy in identifying relationships between demographic characteristics and the outcomes of preoperative teaching (Cooper, 1984).

A meta-analytic technique based on the Fixed Effect Model, which provides a least-variant estimate of the ES parameter, was used to calculate the magnitude of the intervention effects (Hedges & Olkin, 1985). An ES was calculated for each study by taking the difference of the means of the outcome variable of the experimental and control groups and dividing it by the pooled *SD*. ES values obtained in this way were corrected for small sample bias, and weights were given to individual studies to minimize the variance of the resulting single ES estimate. The resulting ESs were linearly combined to produce a single estimate of the population ES parameter. A confidence interval for the ES parame-

ter was obtained using the above estimate together with its variance. Finally, a homogeneity test was performed to determine the validity of the assumption that all studies share a common population ES parameter. This was accomplished by calculating the Q-statistic, which is the weighted mean square deviation of the individual ESs from the population ES estimate. The value of the Q-statistic was then compared to the probability values of the chi-square distribution to determine whether the differences in the individual ESs could be explained by chance alone.

Results

Of the 141 studies considered, 20 met the criteria for the study. Twenty percent of the studies in the final sample had not been included in any of the previous meta-analyses. All studies were published in journals during the period 1970 to 1996 and had been conducted in major cities in the United States (75%), the United Kingdom (15%), and Canada (10%). The sample sizes ranged from 21 to 129 and represented a total of 1,260 adult patients. Most studies did not provide the response rates (75%) nor the attrition rates (70%). All studies used either an experimental or a quasi-experimental research design, and most (65%) of the studies used random assignment to treatment condition.

The majority of the studies reported the age ($n = 16$, 80%) and gender ($n = 18$, 90%) of the participants. In most (65%) of the studies the average age was in the range of 41–60 years, and the majority (60%) of the studies included more women than men. Only 30% ($n = 6$) of the studies reported participants' education, and the average education was above secondary level. The studies that reported race/ethnicity ($n = 6$, 30%) consisted of mostly white, English-speaking patients. Twenty-five percent ($n = 5$) of the studies excluded patients who were not proficient in English, could not understand consent forms, or could not read or write. The results of the frequency count indicated that the number of studies with significant findings did not differ substantially from the number of studies with non-significant findings across the age, gender, educational, and ethnic groups for both LOS and pain outcomes, implying that age and gender did not affect these outcomes. However, there was a tendency for younger age groups and groups with higher education to have non-significant effects on the LOS outcome. No clear pattern was noted between ethnicity and LOS outcome. In comparison, there was a tendency for non-significant pain outcomes to be associated with the all-male groups. No clear pattern was noted between level of education and pain outcome, but there was a tendency for white patients to have significant pain reduction. The results of the frequency

counts were confirmed by the homogeneity test when aggregated under each of the outcome variables.

Statistical techniques used in the quantitative analysis resulted in an ES of 0.46 for LOS outcome and 0.39 for pain outcome. The variances associated with the population estimate of the ES were 0.016 for LOS and 0.008 for pain, and the 95% confidence intervals were 0.206–0.708 and 0.220–0.570 respectively for LOS and pain. ES results were homogeneous across the studies.

Discussion

The findings of this meta-analysis confirm the continuing effectiveness of the preoperative teaching intervention for LOS and pain outcomes in adult patients. The ES of 0.46 obtained for LOS is consistent with that found by Devine and Cook (1983). Similarly, the ES of 0.39 obtained for pain is consistent with that reported by Devine (1992) and Devine and Cook (1986).

The fairly narrow variances associated with the population estimate of the ES for the outcomes as well as the 95% confidence intervals that did not include zero or negative values indicate that preoperative teaching does have favourable and reliable effects on these two outcomes. The homogeneity of the ES suggests that the ES values come from the same population and that any further subgrouping of the primary studies in relation to the demographic characteristics of the patients would be futile.

Implications

Further research is needed to examine how various demographic characteristics can, alone or in combination, affect various aspects of preoperative teaching. Further research is also needed to assess the cultural and linguistic appropriateness of instruments and scales that are commonly used in research. This issue has often been avoided by excluding from studies those patients who are not proficient in English, cannot understand the consent forms, or cannot read or write.

Most of the studies so far have been conducted in the United States, with a limited number being conducted in Canada. Various characteristics such as ethnicity, educational level, and socio-economic factors like poverty, cost of health care, or availability of insured services can influence these populations differently. Therefore, more Canadian studies examining preoperative teaching effectiveness are necessary.

Future research should recognize the importance of reporting details about response rate, attrition rate, and the characteristics of participants versus the characteristics of those who have declined to participate. Such information would aid in determining the representativeness of the sample and the population to which the results can be applied.

In conclusion, the findings of this study confirm the positive and moderate effects of preoperative teaching on the postoperative outcomes of LOS and pain. However, it is uncertain whether preoperative teaching is as effective in very young or very old patients and for those who have minimal education, for those not proficient in English, or for those from various ethnocultural groups. Thus, preoperative teaching should be individually tailored and evaluated in everyday practice.

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Authors' Note

Revisiting the Issue of Co-dependency in Nursing: Caring or Caretaking?

Laurie Michelle Hopkins and Winston Jackson

La documentation sur la pratique infirmière prétend que les individus qui affichent des traits de codépendance (une prise en charge constante des autres au point de se négliger soi-même) choisissent la profession infirmière dans le but de combler une pathologie et que ce travail favorise des comportements de codépendance puisqu'il nécessite la pratique de l'empathie. Cette étude avait pour but de déterminer si les taux de codépendance étaient plus élevés chez les étudiants en sciences infirmières que chez les étudiants d'autres programmes. Des données ont été recueillies au moyen d'un questionnaire. Un index de codépendance fondé sur un continuum a été élaboré ainsi qu'un sous-index du degré d'empathie dans le but de mesurer avec plus de précision les traits de codépendance. Contrairement à ce qui est véhiculé dans la documentation sur le sujet, les tests unilatéraux ont révélé qu'il n'y avait aucun lien entre la codépendance et le choix d'un programme universitaire. Les résultats de cette étude indique un besoin d'utiliser une approche d'évaluation de la codépendance fondée sur un continuum pour éviter que l'élément d'empathie présent dans les outils d'évaluation ne crée un préjugé défavorable envers la pratique infirmière, une profession basée sur l'empathie.

Mots clés : codépendance, empathie, outils d'évaluation, étudiants en sciences infirmières

It is purported in the literature that individuals who demonstrate co-dependent traits (consistently taking responsibility for others to the point of neglecting oneself) enter the nursing profession to fulfil pathological needs and that nursing encourages co-dependent behaviour through its focus on "caring." This study was undertaken to determine whether nursing students have higher co-dependency scores than students in other programs. Data were collected through a questionnaire. A continuum-based Co-dependency Index was constructed with a Caring and Caretaking Sub-index to allow for more accurate measurement of co-dependency traits. In contrast to results reported in the literature, one-tailed testing indicated no significant relationship between co-dependency and university program. The results of this study suggest the need for a continuum approach to measuring co-dependency, to ensure that the presence of caring behaviours in measurement tools do not create a bias against nursing, a profession based on caring.

Keywords: co-dependency, caretaking, caring, addictions, measurement tools, nursing students

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In 1996/97, in considering an honours thesis topic, the first author was struck by the negative image in the literature of "caring" within the nursing profession. One common perception is that individuals who demonstrate co-dependent traits/behaviours (consistently taking responsibility for others to the point of neglecting oneself) enter the profession of nursing in order to fulfil their pathological needs. Furthermore, it is suggested that the profession actually encourages co-dependent behaviours within its ranks through its focus on caring. Such suggestions are of particular concern given the inconsistency of research and measurement tools being used. This research project involved the development and testing of a more accurate measurement tool representing a continuum of co-dependency traits applied to a continuum of studies (nursing, sociology, business), from primarily "helping" to primarily business-oriented.

Literature Review

The concept of co-dependency emerged in the 1970s in relation to individuals who became "dysfunctional" as a result of being in a relationship with an alcoholic person (O'Brien & Gaborit, 1992). The focus gradually shifted from the family of the alcoholic to other members of society and the "diagnostic category of co-dependency emerged" (Clark & Stoffel, 1992, p. 821). The majority of authors agree on the characteristics of co-dependency: low self-esteem, perfectionism, controlling behaviour, exaggerated sense of responsibility for others, suppression of feelings, caretaking, denial, and dependency (Arnold, 1990; Fagan-Pryor & Haber, 1992; Herrick, 1992; Zerwekh & Michaels, 1989).

Risk factors for co-dependency are discussed in the literature. The presence of family addiction (Caffrey & Caffrey, 1994; Clark & Stoffel, 1992; Fagan-Pryor & Haber, 1992; Malloy & Berkery, 1993; O'Brien & Gaborit, 1992; Yates & McDaniel, 1994; Zerwekh & Michaels, 1989) is often mentioned. Low self-esteem is defined in terms of both symptomatology and a tendency to form casual relationships (Caffrey & Caffrey). Poor self-identity, external locus of control, and an external view of the world — all resulting from poor differentiation of self — are described as prerequisites of co-dependent behaviour (Arnold, 1990, Part I; Fagan-Pryor & Haber; Malloy & Berkery; Mullaney, 1993). Organizations established more recently such as the Betty Ford Center's Solutions Outpatient Services (Texas Commission on Alcoholism and Abuse, 2002), Co-Dependents Anonymous (2002), Baptist Hospital East (2002), and Web sites such as RecoveryMan. comWebMaster (Will, 2002)

continue the practice of referring to the above characteristics and symptomatology.

It has been suggested that co-dependency is more prevalent in the helping professions, especially nursing, and, further, that co-dependent individuals are attracted to the nursing profession (Angel, 1992; Clark & Stoffel, 1992; Davidhizar & Shearer, 1994; Herrick, 1992; Ryan, 1991; Wise & Ferreiro, 1995). Nurses are often singled out as a group in which co-dependency traits are evident and even encouraged by the healthcare system (Arnold, 1990; Caffrey & Caffrey, 1994; Farnsworth & Thomas, 1993; Hall & Wray, 1989; Herrick; Malloy & Berkery, 1993; Wise & Ferreiro; Yates & McDaniel, 1994).

Robert Westermeyer (2002, p. 3) cites Ann Wilson Shaeff's statement that "mental health practitioners, are, by definition, codependent…'people in the field are non-recovering codependents who have not recognized that their professional practice is closely liked with the practice of their untreated disease'."

Recent research in the area of co-dependency and its relation to the helping professions has raised interesting questions about the entire concept of co-dependency and whether it is a valid diagnosis outside the context of addictions and addictions treatment. Westermeyer (2002) summarizes: "From the mid-eighties to the present, the codependency idea has become bastardized, and with each new self-help book the symptoms of codependency mount… [It is] impossible for anyone walking the planet…to finish one of these books and not consider the possibility that he or she is codependent…the very act of compromising one's needs to aid a loved one (or anyone) is now deemed symptomatic of a progressive disease process" (p. 1). In an article titled "How the Co-dependency Movement Is Ruining Marriages," Willard F. Harley Jr. (2002) reviews each item in a 10-item questionnaire designed to determine the presence of co-dependency issues. He concludes that answering no to the questions (indicating an absence of co-dependency issues) results in "a formula for sociopathic behaviour" (p. 6). Robert Burney (2002) offers a rebuttal. He defends the co-dependency movement based on the premise that Westermeyer, in critiquing it, "reveals himself to be a raving codependent" (p. 1). No fewer than six times, Burney refers to Westermeyer as raving or co-dependent. He states that Westermeyer is a counsellor with "an agenda…shaming and abusive" (p. 5) and that "the majority of therapists and counsellors…live in Dr. Harley's world" (p. 8).

The literature gives us sufficient reason to question the relationship between the nursing profession and co-dependency: a dearth of scientific studies (Clark & Stoffel, 1992) and cross-disciplinary studies; the fact that the majority of statistics being reported are overstated (Davidhizar & Shearer, 1994; Malloy & Berkery, 1993) to the point where statistics being "postulated" (Davidhizar & Shearer, p. 41) and "estimated" (Clark & Stoffel, p. 821) exceed actual population numbers; and concern that the measurement indices being employed have not been tested for validity or reliability (Wise & Ferreiro, 1995) and that arbitrary cut-off points have been used in determining the seriousness of co-dependency traits (Hall & Wray, 1989; Yates & McDaniel, 1994).

Because many frameworks of nursing practice are built around the concept of caring (Herrick, 1992), the literature distinguishes between the terms caring and caretaking. Caring is described as "empowering" (Caffrey & Caffrey, 1994, p. 12), as nurses taking "responsibility for themselves" and supporting their clients "in learning to take responsibility for themselves" (Farnsworth & Thomas, 1993, p. 180), and as "understanding, involved...comforting...supporting, and proficient" (Herrick, p. 12). Caretaking, on the other hand, is described as being "absorbed in another's problems at the expense of taking care of oneself" (Herrick, p. 12) and as neglect of oneself "due to an exaggerated sense of commitment to helping others" (Farnsworth & Thomas, p. 180).

Although the literature clearly distinguishes between caring (healthy) and caretaking (co-dependent) behaviours, most co-dependency scales include caring behaviours (or behaviours that are ambiguous at best). A review of the literature also points to the need for a continuum approach to co-dependency. Caring behaviours taken to an extreme may be considered co-dependency traits, but caring or occasional caretaking behaviours cannot be considered indicative of individual pathology.

Westermeyer (2002) summarizes the importance of caring: "Caregiving is not enabling...is fueled by the capacity to experience empathy...one of the most robust indicators for positive outcome from most psychiatric maladies is a social support" (p. 4). Caffrey and Caffrey (1994, p. 14) quote Mallison's (1990) explanation for why the nursing profession should be concerned: "The co-dependency label is the 'latest attempt to pathologize the caring professions...society has lost the distinction between addiction and commitment'."

Method

Research Questions

The two questions for this study were: (1) *Do nursing students have higher co-dependency scores than students in other programs, specifically those that do not have a "caregiving" or "helping" focus?* and (2) *If nursing students score higher on co-dependency indices, can the difference in scores be explained by the presence of "caring" behaviours in the indices?*

Data Collection/Subjects

Data were collected in the 1996/97 school year using a questionnaire that was class administered to 153 voluntary participants from years one through four of the nursing, sociology, and business programs at St. Francis Xavier University in Antigonish, Nova Scotia, Canada. All of the participants were women. A stratified quota sample was employed; minimum representation was obtained from each of the three programs, stratified by year (1 through 4).

Ethical Considerations

Prior to 1998, honours theses at St. Francis Xavier University were not reviewed by the university Research Ethics Board. This study was completed in 1997 and hence was reviewed only by an honours thesis committee. However, ethical integrity was ensured. The committee required that a statement be included at the top of the questionnaire indicating the confidential nature of the data and requesting that respondents not write their name on the form. The questionnaire was administered at the end of class and took about 12 minutes to complete. As the student researcher, the first author was required to indicate, in her introduction to the questionnaire, that participation was voluntary and that respondents could omit any question or withdraw at any time.

Measurement

A 15-item Co-dependency Index with a Cronbach's alpha of 0.8429 was constructed using the items from the Self-Esteem, Self Differentiation, External Locus of Control, and Negative Nursing Role Model indices, as well as the Caretaking and Caring sub-indices (all dimensions of co-dependency as noted in the literature). Two sub-indices were created: a five-item Caretaking Sub-index with a Cronbach's alpha of 0.6974 was constructed from the caretaking items found in the Co-dependency

Index, and a five-item Caring Sub-index with a Cronbach's alpha of 0.7786 was constructed from the caring items found in the Co-dependency Index. A Revised Co-dependency Index with a Cronbach's alpha of 0.7961 was constructed from the Co-dependency Index with the Caring Sub-index items removed.

Following are sample items from each of the indices. Self-Esteem Index: *I often wish I were someone else.* Self Differentiation Index: *I know what goals I want to achieve in life. I am very easily upset by disagreements with other people.* External Locus of Control Index: *I feel that events in my life are always controlled by fate, chance, luck, or other people. I believe I can modify any situation I find myself in.* Negative Nursing Role Model Index: *When considering the majority of your contacts with the health-care system (specifically nurses) how closely did their actions resemble the following statements? Appeared to be doing everyone else's work as well as their own (1–9). Helped colleagues as his/her time allowed (1–9).* Caretaking Sub-index: *I feel extremely responsible for others' feelings, thoughts, actions, needs, and well-being. I hold back my feelings much of the time because I do not want to hurt other people or have them think less of me.* Caring Sub-index: *I often put others ahead of myself. I feel best when helping others. I often help others at my own expense.*

Index items were scored from 1 to 9 (with items reverse scored as appropriate). Following the exclusion of items that did not fit, according to Cronbach's alpha, the indices were computed by adding the remaining items.

The items for each index were developed by identifying, in the literature, the dimensions involved and the development of measures to reflect them. The validity of the indices is based on Cronbach's alpha computations that were found to be within the acceptable range.

Results

Because the direction of the relationships in the research hypotheses was predicted, a one-tailed test of significance was considered appropriate. In contrast to the findings reported in the literature, the one-tailed test indicated no significant relationship between co-dependency and university program. Furthermore, in contrast to the first author's prediction, the variance in co-dependency scores was always explained by the Caretaking Sub-index rather than the Caring Sub-index. Her prediction that the presence of caring behaviours in the Co-dependency Index would explain the variance between the original and revised Co-dependency scores was based on the common utilization, in the litera-

Table 1 *Selected Variables in Original Co-dependency Index*

Independent Variables		Mean	SD	Number of Cases	Significance	Trend
Program	Sociology	82.76	19.95	25	.7824	–
	Nursing	81.00	18.60	85		
	Business	79.42	17.71	38		
Birth order	First	84.87	16.76	53	.1529	+
	Middle	79.56	20.57	41		
	Last	78.19	18.36	53		
Hometown population	<5,000	81.47	18.40	76	.6996	Not predicted
	≥5,000	80.29	18.79	72		
View of world	Internal	87.69	16.72	32	.0444*	–
	External	80.13	18.87	102		

* Significant at 0.05.

Table 2 *Correlations Between Original Co-dependency Index and Selected Independent Variables*

Independent Variables	Correlation Coefficient	Number of Cases	Significance (*p*)
Number of brothers	.0469	146	.28
Number of sisters	-.0032	146	.485
Family closeness	.1072	148	.097
Year at university	-.2450	148	.001*
Abuse	.0008	148	.496
Family addictions	.1594	148	.026*
Total family addictions	.1517	148	.033*
Siblings' addictions	.1237	148	.067*
Mother's addictions	.1990	148	.008*
Father's addictions	.0266	148	.374
Self-addictions	.0557	148	.501
Self-esteem	-.04987	148	.000*
Self-differentiation	-.5941	148	.000*
External locus of control	.3391	147	.000*
Negative nursing role models	.1192	137	.083

* Significant at 0.05.

ture, of measures that use simple yes/no or true/false statements. In these measures, each caring as well as caretaking statement that the respondent answered yes to would automatically increase her level of co-dependency, and therefore caring behaviours would adversely affect her co-dependency score. The continuum approach used in this study, in which the respondent was able to rate each statement (caring or caretaking) on a scale of 1 to 9, allowed for more accurate measurement of co-dependency traits, even when the caring behaviours were included in the Co-dependency Index. The presence of caring behaviours in the index would not have placed nursing students at a disadvantage and therefore would not explain the variance between the two co-dependency indices.

Co-dependency scores were found to be significantly correlated, using one-tailed significance, with presence of family addictions, total family addictions (including self), presence of mother's addictions, self-esteem, external locus of control, and differentiation of self, in the direction predicted in the literature. An increased internal view of the world was also found to be significantly correlated. Population of hometown was not found to be a significant variable, and although birth order did not reach a significant level, the trend was in the predicted direction (> birth order → > co-dependency). Year of university studies was found to be significantly correlated with co-dependency. Through the course of analysis it was hypothesized that the correlation between higher year and decreased co-dependency scores could be explained on the basis of maturation/development, influenced by other variables (specifically self-esteem and differentiation of self), rather than indicating a direct relationship. The results of the Intervening Variable Model that was tested did not support the hypothesis.

Discussion

In contrast to the majority of findings reported in the literature (Angel, 1992; Clark & Stoffel, 1992; Davidhizar & Shearer, 1994; Herrick, 1992; Ryan, 1991; Wise & Ferreiro, 1995), the results of this study do not support the theory that co-dependent persons are attracted to the nursing profession. Female nursing students were not found to score significantly higher than female sociology or business students on the Co-dependency Index. This result is consistent with that of Clark and Stoffel, who found that occupational therapy students (representing the caregiving role) did not score significantly higher than Health Information Administration students on a co-dependency scale.

"Caring is simply a way of using nursing knowledge, yet nurses who use it too well or too often are considered sick. Accepting the label of co-dependency has turned caring into a cultural and professional embarrassment" (Walter, 1995).

The results of this study point to the potential effectiveness of a continuum approach to co-dependency measures, which would allow for more accurate measurement of co-dependency traits/behaviours. Other researchers have also concluded that co-dependency exists on a continuum (Clark & Stoffel, 1992; Mullaney, 1993), thus supporting the need for a continuum approach to measurement.

The remaining significant variables were consistent with results reported in the literature.

The Future of Caring

The existence of a debate on whether the concept of co-dependency is appropriate outside the scope of addictions indicates the need for a rebuttal to the argument that the helping/caring professions, and more specifically nursing, have a predisposition to pathological co-dependency traits.

The results of this study suggest the need for a continuum approach to measuring co-dependency, to ensure that the presence of caring behaviours in measurement tools will not create a bias against nursing, a profession that is based on caring.

There is always room for research that demonstrates and clarifies the nursing profession's underlying values and principles and its resulting actions. Such research could be used to support nursing's decision to step forward and speak as one voice, and to support the values that the profession purports to stand for.

The International Association for Human Caring (2002) attests to the work that is being done in the area of caring and the work that is possible. The Association is currently developing a Caring-Based Model for Health Care Delivery Based on the Theory of Nursing on Caring, publishes a journal, and hosts an annual conference.

Today, as the year 2002 draws to a close, nursing's role in the health-care system continues to be explored. As members of a profession that distinguishes itself from others based on its principles of caring, advocacy, and critical thinking, nurses must ensure that these traits are not pathological hindrances but that they serve both the community and the profession in a positive way.

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Authors' Note

Strength in Adversity: Motherhood for Women Who Have Been Battered

Lori G. Irwin, Sally Thorne, and Colleen Varcoe

La recherche sur la violence envers les femmes dans les relations intimes a commencé à lever le voile sur les expériences de celles-ci. Rares toutefois sont les études qui se sont penchées sur l'expérience de la maternité chez les femmes victimes de violence conjugale; ce projet de recherche visait à traiter cette question à partir de leur point de vue. Nous avons choisi l'analyse explicative comme méthodologie, car cette approche qualitative permettait de conceptualiser les comptes rendus des participantes en tant que récits construits. Nous avons mené des entrevues auprès de cinq mères victimes de violence conjugale. L'analyse a révélé que la violence avait façonné leur expérience de la maternité; elles faisaient face à des problèmes complexes, mais la maternité agissait néanmoins comme tampon contre la violence et comme source de force. Ces résultats approfondissent notre compréhension de l'expérience complexe qu'est la maternité dans un contexte de violence et nous offrent des pistes dans la tâche d'améliorer les soins offerts aux femmes battues.

Mots-clés : maternité, violence envers les femmes

Research into violence against women in intimate relationships has begun to uncover women's experiences of abuse. However, there is a paucity of research addressing women's mothering experiences in the context of partner abuse. The purpose of this study was to explore the experience of motherhood from the perspective of women who have been battered. The methodology used was interpretive description, a qualitative research approach in which the women's accounts could be conceptualized as constructed narratives. Five mothers who had been battered were interviewed twice. Analysis revealed that the abuse shaped their experiences of motherhood and that they faced complex mothering challenges, but that motherhood nevertheless acted as a buffer against the abuse and as a source of strength. The findings extend our understanding of the complexities of mothering in the context of abuse and provide direction for improving health-care support for mothers who have been abused.

Keywords: motherhood, woman abuse, capacity building

Motherhood has long been a naturalized role for women in Western society. Our cultural representations are ever present — from the mag-

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azine aisles to the playground, mothers are inundated with messages about how to be the perfect parent. Critiques of these images of motherhood by psychologists, health-care professionals, sociologists, and so on have been prompted by a recognition that the lived experiences of mothers are incongruent with the romanticized notions omnipresent in society (e.g., Bergum, 1989). Almost 15 years ago, Benjamin (1988) suggested that psychological theory (e.g., Lederman, 1984; Rubin, 1984) was inadequate for articulating the mothering experience. Although theories can be a valuable source of knowledge, strong reliance upon theoretical perspectives can diminish our ability to appreciate the larger context in which women's lives are lived. Women internalize idealized images of motherhood in their daily lives and use them as standards to judge their mothering harshly.

Consistent with these idealized images, mothers are held responsible for nurturing, protecting, and caring for their children at all costs (Ingram & Hutchinson, 1999). In the case of woman battering, they are blamed for failing to protect their children from the direct or indirect violence in their role as nurturer and caregiver (Stark & Flitcraft, 1988). The label "battered" suggests that the woman's experience of motherhood differs from the norm. In the absence of adequate foundations for practice, violence then becomes the lens through which those caring for mothers who have experienced abuse view the motherhood role. Although it may be undeniable that violence contributes to the complexity of motherhood, there is a tendency to pathologize all of a woman's day-to-day mothering challenges as a product of that violence (e.g., Stark & Flitcraft; Swift, 1995). Since the prevailing notions of motherhood and violence have not been widely critiqued, women who experience abuse will continue to be marginalized as a result of assumptions embedded in practice, research, and policy.

We know very little about women's experiences of mothering in the context of battering. However, nursing studies have been instrumental in shedding some light on mothering in abusive relationships (e.g., Henderson, 1990, 1993; Humphreys, 1995a, 1995b). Such studies reveal that mothers who have been battered find it difficult at times to respond to their children's needs, that their children can be a reason for them to remain in or leave the relationship, and that the safety of their children is paramount to them. Their worries about their children include those that are common to all mothers as well as those that are specific to the context of abuse by a partner. Although the literature provides some insight into the experience of mothering, it fails to capture the matrix of influences that pervade the lives of mothers who are battered by their partners. Health-care professionals who come in contact with mothers

who have been battered have an opportunity to support women in unique ways. Yet at present we can only describe mothers' concerns about their children, their decision-making processes, and the nature of their mother-child relationships. Therefore, health-care professionals have an incomplete understanding of the experience of motherhood for women who have been battered.

Purpose of the Study

The purpose of this study was to explore perceptions, among women who have been abused by a partner, of their personal mothering realities, their understanding of the context in which they live, and their understanding of how this context shapes their experience of motherhood.

Methods

Because the complexity of any human experience requires a methodology capable of eliciting a rich description of the subject area, interpretive description guided by narrative inquiry was the method chosen for this study. Interpretive description allows for recognition of the contextual and constructed nature of health-illness experiences in which concern for the experiences of the aggregate includes the individual (Thorne, Kirkham, & MacDonald-Emes, 1997). To augment this methodology, narrative inquiry was used to guide data collection and analysis. Narrative inquiry is grounded in the understanding that meaning is contextually situated and co-constructed, and it recognizes the tendency of people to narrate or "story" their experiences (Mishler, 1986). While formal narrative inquiry focuses on the narrative itself, this unique mixed approach allowed the women to narrate their experiences as *whole* stories and allowed the researcher to contextualize these accounts as reflective of the women's attempts to make sense of their lives as mothers.

The supervising university conducted the ethical review for the study. Five mothers participated in the study. Three were identified through the facilitator of a program for women who had left abusive relationships and were involved in custody and access issues, and two were identified through word of mouth. Informed consent was obtained prior to data collection.

The five women were from diverse socio-economic, educational, marital, and ethnic backgrounds, with an age range of 28–54 years. The mothers chosen for the study were at various points in the process of

living with battering; however, all had left their abusive partners and were no longer experiencing battering (*range* = 1–15 years).

The study consisted of two interviews with participants to obtain rich, comprehensive data on their experiences of motherhood — an initial interview and a follow-up interview. The second interview was focused on sharing the preliminary analysis with the women and adding depth to the analysis by having the women participate in the construction and validation of meaning and in extending and clarifying the existing interpretations.

Data analysis was conducted in a systematic fashion guided by the general principles of interpretive description (Thorne, Kirkham, & MacDonald-Emes, 1997) and recommendations for the identification and interpretation of narratives (Lieblich, Tuval-Mashiach, & Zilber, 1998; Mishler, 1986). The procedure for data analysis involved immersion in the verbatim accounts to develop themes within each account and patterns between and among the narratives. During this process, an interpretive description of the phenomenon of motherhood in the context of an abusive relationship emerged. A feminist approach to analysis was adopted for the study. In this approach, race, class, ethnicity, education, age, gender, ability, and so on interact to influence all aspects of the research process. Interpretations were made in relation to the complexity of the women's lives, with efforts made to resist explanations that represent a universal ideal of motherhood.

Findings

The analysis of the women's stories revealed that the intimate-partner abuse the women endured influenced their experience of motherhood in a variety of challenging and contradictory ways. The narratives conveyed images of what it is like to be a mother in an abusive relationship.

Abuse Shapes the Experience of Motherhood

The women found the abuse in their lives so powerfully linked to motherhood that they were drawn to tell stories of the abuse. One woman started to tell her story of motherhood, stopped short, and said, "I can't think of motherhood without thinking of the violence in my life." Stories of motherhood were thus juxtaposed and interwoven with stories of violence and control. One mother said the violent relationship resulted in a "slow giving away of self" and a "slow giving away of…power." The women came to know what patterns of dialogue or

what occasions would trigger the violence and attempted to avoid these. Having to successfully manoeuvre around these triggers usually meant that the partner somehow controlled their mothering. One woman said, "I could only mother her the way he said, and it was a lot of work...it was hard to be a mother." She recognized that effective management of the violence meant that her partner controlled her mothering — from the decision to use cloth diapers to breastfeeding schedules.

The women spoke of the importance of their role as mother, which included responsibility for meeting family needs despite the abuse. One woman spoke of asking her counsellor for advice on "how to manage" the abuse when leaving was not a viable option for her family. As with the other women, this woman's ideal of family included a father and keeping the family together at all costs to herself. She hoped that she would be "smarter" than her partner and be able to minimize the abuse in her life in order to make a better life for her family. Eventually she realized that her children were the "reason I stayed," and so when "they were unhappy" she had another reason, besides her own needs, for leaving the relationship. The women's stories reveal a consistent pattern of activities and strategies undertaken to effectively mother despite the oppression. Being a good mother sometimes saved these women and gave them a refuge from the abuse — a place where they could feel good about themselves or where their partner's abuse could be deflected.

Challenges and Contradictions of Mothering

The women faced a number of distinct challenges related to their own ideal of the family and the family structure that was best for their children. The poverty and uncertainty they faced upon leaving was compounded with the doubts about their decision to deprive their children of what they had idealized in terms of family life. Two of the women stated that it would have been "easier to return" to their partners than watch their children endure the constraints of poverty. Nevertheless, the women spoke of managing to keep their constant worry hidden from their children. One woman described the creativity and imagination she used on her first night in second-stage housing (without furniture):

> I said, "We're camping out tonight," took our pyjamas and put them in the dryer to warm them up, and — we had our backpacks — we hiked down the hill to get some food. So on the inside I was just a mess, but on the outside I never let on to them that we couldn't handle it.

Another woman explained that they would "make a game of collecting pop bottles" for money to maintain the illusion that everything was okay.

The aftermath of leaving a violent relationship was fraught with tension between a sense of freedom and a sense of being controlled, perpetuated by a link to the partner through child custody and access issues. Their children became a link to the person from whom the women had fought so hard to break free — a connection none of the women anticipated before leaving. One woman said, "He still has access to the kids, he's still able to manipulate me through the kids, and he's always going to be in my life." Another mother told of how her partner used the "handover of her daughter" as an occasion to criticize her mothering. Regardless of the difficulties, the women found ways to manage visitation and provide their partners with appropriate access.

Motherhood as a Source of Strength

While the women were at various points in the process of rebuilding their lives after the abuse, they shared a number of experiences that involved recognition of their strengths as mothers. The abuse they endured in their intimate relationships had eroded their self-esteem, and yet motherhood had served somehow to preserve their sense of self. One woman reflected on the fact that being a good mother helped her to cope with her abuse:

> *I think it's a coping mechanism, being a good mother. You can shift away from the problems that you have by being the best that you can as a mother. I guess it made me feel really good about myself, and that's where my strength is. If I can be such a good mom…that really helped me get through [the abuse].*

Motherhood offered a respite from the periodic terror in the women's lives; more than one woman spoke of motherhood as her "salvation," and in retrospect the women felt that they would never have made it through the challenges and pressures of living with violence had it not been for their children. The difficulties that the women attached to the role were mitigated by the happiness that their children brought them. Thus, despite the abuse, the women continued to be the best mothers they could be and developed strong mother-child relationships.

Because the women were empowered by motherhood, they eventually reconstructed their families according to their own values. They spoke with pride of the new, connected sense of family that came from the belief that they were good mothers and could build a "different

kind of family," which meant gaining back something of the person they remembered being. The women said that being free meant they could establish their own sense of family together with their children. One woman said, "Family can be defined in so many different ways, and [my daughter] and I have a strong family. I have the capability of mothering, to model good behaviour."

In the women's accounts of mothering in the context of violence, their sense of self was an integral component of their lives as mothers. Each woman spoke of her sense of self being eroded by the abuse in her life and of motherhood enhancing her sense of self in particular ways. The women described instances of growth and change in the evolution towards self-discovery and greater self-awareness. All of the women said that belief in themselves was, in retrospect, what had got them through the abuse. One woman said that receiving her first cheque and taking it to the bank meant that she could start to build a life free from violence: "I felt really good about myself, so it's been a long struggle to put a house back together, to put our lives back together." It was evident that hers was a struggle to gain back the self she knew to be strong and capable. In reflecting on her new life, another woman said, "Nobody can kill my determination and nobody can kill my spirit." The women spoke of discovering the person, strength, and agency they had lost while enduring violence. In their stories, the women revealed resilience and described a process of rebuilding their sense of self-worth, experiencing growth, and fulfilling their responsibilities to their children.

Discussion

The findings of this study differ from those of other studies that have touched on the experience of motherhood for women who have been battered. Although the women's stories contained elements of doubt about their mothering abilities, overall the women viewed their motherhood role in a positive light. The study represented an opportunity for women to reflect on, question, and construct their lives as mothers as whole "stories."

The discrepancy between the findings of the current study and those reported in the literature has various explanations. The timing of the interviews in the current study could account for the women's perceptions of their mothering. The women were removed from the immediate abuse and all were relatively secure in terms of shelter and finances. They were speaking retrospectively, sharing stories of being available to their children throughout the abuse, through leaving,

through finding shelter, to the present day. The focus on the women's perspective of motherhood may have elicited responses wherein concern for the children was central. They may have prioritized their children's needs in their stories even though there must have been times when they were not fully accessible to their children. It may be that the women's recollections were formed in the context of reframing their stories in a more favourable light and giving meaning to the suffering they had experienced. Alternatively, it may be that the other studies were focused on various aspects of the abuse, concentrating on the extent of the trauma from the abuse rather than on the women's capacity to survive the abuse.

Wuest and Merritt-Gray (2001) suggest that women's needs change as they move through the process of leaving an abusive relationship. Although previous research with women in shelters has found that such women experience difficulty in their mothering role (e.g., Henderson, 1990, 1993), the present study found that mothering may have served to buffer the women's experiences of violence and to enhance their self-esteem. Nurses are in a unique position to support mothers who are in the process of leaving or staying in an abusive relationship; awareness of a woman's stage in this process is critical for effective support.

Motherhood binds women to their abusers in unique and unyielding ways. Regardless of stage in the staying/leaving process, women with children are bound to their abusers in ways that perpetuate the abuse. For the women in this study, their children were a link to their abusers and they had to continue to manage their families on the basis of their partner's unpredictability, their children's needs, and the conditions of their legal agreements.

Shalansky, Ericksen, and Henderson (1999), in a study with women in a parenting group sharing child custody and access with their abusers, found that the women worried about their children due to the phenomenon of escalation of violence post-separation, were torn between the ideal of their children having a father and the danger the partner posed to the woman, and felt that contact adversely affected their emotional and physical health. Varcoe and Irwin (submitted), in a study examining the systemic barriers for women who have been abused, found that mothers had to struggle to gain even a modest level of support from the system concerning custody and access issues and were reluctant to reveal the abuse to professionals for fear of child apprehension. Health professionals must be cognizant of all the unique issues and fears that mothers who have been abused continually face

when accessing the system in order to secure care. Nurses in particular should understand the importance of developing trusting relationships with their clients and be open to women's stories that might help them identify such situations.

Recently there has been a thrust within health care to adopt models of capacity-building in health programming and social support. Assessing women's strengths and working with women to build upon these strengths is key to building their health capacity. The women in the present study had sought support for their mothering at times when leaving was not an option, found the will and the strength to go on living because they were mothers, and, possibly, survived because of their children. Thus mothering played an integral role in providing them with the strength to make difficult decisions when the time was right. The findings suggest that health-care professionals are poised to support such efforts by mothers and to develop the known capacities of women who remain in abusive relationships based on their mothering ideals. It is essential that emphasis be placed on the woman's capacity to make choices and to transform her health and healing experience in ways that are meaningful to her family.

A note of caution: the sensitive nature of such opportunities must be recognized, as a "do it for your children" agenda could unnecessarily subjugate women's needs. In general, nurses must be prepared to listen to women in ways that honour each individual story and recognize each woman's strengths as well as the challenges she faces. The stories of the women in this study demonstrate their commitment to their children and acknowledge the motherhood role as a source of strength. By listening to women's stories in an open and non-judgemental manner, without preconceived notions of women's lives and challenges, nurses will be better positioned to gain the trust of their clients and to provide meaningful support at critical junctures in their lives.

Summary

Research in the area of motherhood remains limited. The findings of the present study suggest that we must continue to investigate the effects of women's roles such as motherhood in order to better understand the context of women's lives and, possibly, develop a model that uncovers women's strengths instead of pathologizing their lives. This study uncovered the inherent strength and contradictory role of motherhood. When it came to managing the abuse in their lives, protecting their chil-

dren, and making decisions, the women's motherhood was a necessary source of strength in times of crisis.

The question remains: How best to support the strength that women draw from their motherhood role, particularly with regard to supporting the women without using their children? We must continue to move towards best practice with women who have been abused — practice that may never capture a full understanding of the complexity but that remains sensitive to women's individual needs.

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Authors' Note

Opening Doors:
Factors Influencing the Establishment of a Working Relationship Between Paraprofessional Home Visitors and At-Risk Families

Susan Jack, Alba DiCenso, and Lynne Lohfeld

Cette étude à caractère phénoménologique avait pour objectif de cerner et décrire les facteurs influençant le développement d'une relation de travail entre les intervenants sociaux et les familles à risque. On a mené des entrevues en profondeur et semi-structurées auprès d'un échantillon au jugé constitué de six intervenants et de six infirmières de la santé publique embauchés pour faire des visites à domicile auprès de familles à risque. L'analyse révèle que les infirmières jouent un rôle important dans la tâche de promouvoir les programmes de visites à domicile et faciliter l'accueil des intervenants au sein de ces familles. On a établi que certains facteurs relatifs à l'intervenant, au client et au ménage avaient une influence sur le développement de la relation. Un lien s'établit à mesure que se définit « un terrain d'entente » et que « la confiance s'installe ». Une compréhension accrue de ces facteurs permettra tant aux infirmières qu'aux intervenants sociaux d'atteindre les familles réticentes qui repoussent les offres de soutien et de services. Ces résultats ont des implications pour les infirmières responsables de l'embauche, de la formation et de la supervision des intervenants sociaux.

Mots-clés : visites à domicile, infirmières de la santé publique, intervenants sociaux, relation de confiance

The purpose of this phenomenological study was to identify and describe factors that influence the establishment of a working relationship between paraprofessionals and at-risk families. In-depth, semi-structured interviews were conducted with a purposive sample of 6 family visitors and 6 public health nurses hired to visit at-risk families in their homes. Analysis revealed that nurses have an important role to play in marketing home visiting programs and facilitating family visitor access to the home. Factors related to the family visitor, the client, and the client's household influenced relationship development. Family visitor-client engagement occurred through "finding common ground" and "building trust." Increased understanding of these factors will help both nurses and

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family visitors to access those families who are hard to reach and resist support and the provision of services. The findings have implications for nurses who are responsible for hiring, training, and supervising family visitors.

Home visiting by public health nurses has had a demonstrated positive effect on maternal well-being, child development, and awareness and use of health services, particularly for high-risk families (Ciliska et al., 1999; Olds et al., 1999). With some at-risk families, nurses may experience difficulty locating, accessing, and engaging the family in the home visit (Zerwekh, 1991). To ameliorate this problem, some early-intervention programs employ paraprofessionals or lay persons to act as a link between families and formal support systems. The rationale for hiring these visitors is that their life experiences, values, and beliefs may be similar to those of the families they visit and that this "shared culture" will facilitate the development of a trusting relationship (Wasik, 1993).

In this article, we will identify and describe factors that influence the establishment of a working relationship between family visitors and at-risk families. An enhanced understanding of these factors will help both professional and paraprofessional home visitors to access families who are hard to reach and who resist support and the provision of services.

Background

In 1998 the Province of Ontario implemented a universal early-intervention program called Healthy Babies, Healthy Children (HBHC). The objectives of this voluntary program include linking at-risk families to community services, supporting the development of parenting knowledge and skills, and enhancing child development (Ontario Ministry of Health, 1997). Universal postpartum screening is conducted to identify families whose children are at risk of developmental delays. At-risk families are then eligible to receive home visits from both a public health nurse and a family visitor. A family visitor is a paraprofessional from the local community who provides social support and health education, promotes child development, and connects families to community resources (Ontario Ministry of Health).

Literature Review

There is an extensive base of literature on the evaluation of home visiting programs. These programs are generally classified as one of three types: professional, paraprofessional, or blended — a program that uses

a mix of professionals and paraprofessionals. A series of rigorous randomized controlled trials (RCTs) evaluating American home visiting programs that used highly trained nurses demonstrated multiple positive maternal and child outcomes, especially for those families most at risk (Olds et al., 1999). A subsequent RCT examined the effectiveness of home visiting by nurses and by paraprofessionals, as separate service providers, in improving maternal and child health outcomes. It found that for most outcomes on which the nurses produced beneficial effects, the effects produced by the paraprofessionals were approximately half the size (Olds et al., 2002).

Despite evidence supporting the use of nurse home visiting programs, many governments and agencies have implemented paraprofessional home visiting programs, or, as in Ontario, a blended model. It is difficult to synthesize results from evaluations of paraprofessional programs because of the complexity and diversity of programs (which vary in terms of purpose, intended outcomes, and target population) and because of variation in the characteristics, education, and experience of home visitors, in the duration and intensity of home visiting, and in the type of intervention provided during the home visit. However, a recent thorough systematic review of the effectiveness of paraprofessional home visits summarized 21 studies and rated four as methodologically strong and 17 as moderate (Wade et al., 1999). The authors conclude that paraprofessional interventions can positively impact child-development and parent-child outcomes, especially when the visiting is intense (weekly or bi-weekly for a minimum of 1 year), when started during the prenatal period, and when part of a multifaceted program that offers professional support and links families to other services and resources.

Therefore, there is evidence to suggest that participation in a home-visiting program can have a positive impact on the overall health and well-being of high-risk families. However, it is estimated that 10–25% of eligible high-risk families choose not to participate in such programs and that 20–67% of those who do participate will leave the program before their goals are met (Gomby, Culross, & Behrman, 1999). Attrition rates are higher when the home visitor is a paraprofessional instead of a nurse (48% vs. 38%, $p = .04$) (Korfmacher, O'Brien, Hiatt, & Olds, 1999). Reasons for prematurely leaving a home visiting program may include moving, gaining employment, death or removal of a child, or a lack of interest (Gomby et al.). Premature termination may also result from failure on the part of the home visitor to establish a supportive and empathetic relationship with the mother built on a foundation of trust (Gomby et al.; Robinson, Emde, & Korfmacher, 1997).

If lay home visiting is to have a positive impact on the health and well-being of at-risk families, it is essential that the factors that influence the establishment of a trusting lay visitor-client relationship be understood and promoted. Anecdotal evidence suggests that rapport is more quickly established between clients and paraprofessional visitors when they share common life experiences and life history (Hiatt, Sampson, & Baird, 1997). In reviewing the literature, we located no qualitative studies that described the process of paraprofessional-client engagement or home visitors' experiences working with at-risk mothers and/or public health nurses. Also, there is a dearth of literature describing the work of Canadian paraprofessionals; most of the evaluations of lay home visiting programs focus on the delivery of services to urban, high-risk American clients.

Purpose and Research Questions

The purpose of this study was to explore family visitors' lived experiences in establishing relationships with at-risk families. The research questions were: (1) *What factors facilitate and/or hinder family visitor entry into the home and engagement with the family?* and (2) *What is the role of the public health nurse in the development of the family visitor-client relationship?*

Method

Phenomenology was the qualitative approach selected for this study of family visitors' experiences with at-risk families. The goal of phenomenology is not to develop models or theories but to accurately describe an individual's lived experience of the phenomenon under study (Ploeg, 1999). The study was approved by the Research Ethics Board of McMaster University in Hamilton, Ontario.

Sample

Participants were recruited from a health unit in central-west Ontario that provides services to clients living in both rural and small urban communities. All six family visitors employed by the health unit participated in the study. The study also included a purposive sample of six public health nurses, experienced in home visiting at-risk families, who were responsible for making referrals to the family visitor component of the HBHC program. We included the nurses in the study in order to examine how a nurse's perception of a family visitor might influence the development of the family visitor's relationship with the client.

All of the family visitors interviewed were female with an average age of 41 years. Five were married and one was separated. All but one were mothers. Three of the family visitors had a university degree, two had a college diploma, and one had completed some post-secondary education. They had on average 14.5 months' experience working as HBHC family visitors. The nurses were all female with an average age of 45 years. All were married. Five of the nurses had a bachelor's degree in nursing and one had a public health nursing diploma. They had on average 23 years' experience as registered nurses and 16 years' experience in public health nursing.

Data Collection and Analysis

Data were collected during in-depth semi-structured interviews. Each family visitor and public health nurse participated in one 60–90-minute interview about their experiences visiting at-risk families. The principal investigator also maintained field notes and a reflective journal. All interviews were audiotaped and transcribed verbatim. As is the norm in qualitative research, data analysis took place concurrently with data collection. Colaizzi's (1978) framework was used to guide the data analysis. First, transcripts were read in their entirety to make sense of the participants' descriptions of engagement. Significant statements about accessing and engaging with clients were extracted and the meaning of each statement was formulated. Formulated meanings were then organized into theme clusters and the participants' experiences were described in writing. Finally, the principal investigator revisited the participants to determine whether the theme clusters and her written interpretation accurately described their lived experience (member checking).

Results

Selling the Program

The nurses spoke extensively about the frustration they felt because the clients at greatest risk were the least likely to accept a referral to the family visitor component of HBHC:

> *Many times families who are at risk don't see themselves at risk. They don't necessarily want the [family visitor]… My overall feeling is that the people who really need it don't always take it. They don't see the potential benefits of having someone involved.*

When a nurse determined that it would be appropriate to introduce a family visitor into the home, she had to convince the family of the program's benefits. Several of the nurses said that many of the at-risk families they visited had numerous professionals involved in their lives. They expressed concern that such families would be overwhelmed by the introduction of another individual into the home. Families were more receptive to the referral, they said, if the nurse had been able to establish rapport and trust with the client and other members of the household.

Once the decision had been made to seek consent for a referral to a family visitor, the nurses had to "sell" the program to families in two ways: by giving the family written information on the HBHC program, and by clearly describing the family visitor's role using non-threatening language. The family visitors also stressed that their relationships with the families depended on how well the nurses "marketed" or "sold" their services:

> *The public health nurses are key because they know a lot about [the program]. I'm hoping they sell it very well to parents because they know what it's about. They can give the parents a realistic idea of exactly what's going to happen. I think as long as the parent has a very good understanding of what exactly is going to happen they feel more comfortable, and that is what creates success.*

Getting in the Door

The family visitor's physical access to the home was facilitated when the nurse clearly informed the family about her role and purpose prior to the first visit. All the family visitors and some of the nurses explained that they had found it beneficial to make the first home visit together. A conjoint visit allowed the family to see the family visitor and nurse working together towards a common purpose and provided an opportunity for role clarification:

> *I think that there will be times when these families won't be able to tell the difference between a nurse and a family visitor. I want to make [it] very clear to the families that I will still be involved and that I am the nurse and she's more the friendly visitor.*

The family visitors also identified several strategies they used when they were experiencing difficulty gaining physical entry to the home. These included leaving notes on the door, making unscheduled visits, consulting with the nurse to decide on the next step, and connecting with the family by telephone to explore their reason for missing the appointment.

Finding Common Ground

Once she had gained physical entry into the home, the family visitor had to gain emotional entry into the family's life. The family visitors identified several characteristics — both their own and the clients' — that influenced this process. They explained that during the initial home visit they presented themselves as non-judgemental, supportive, and non-threatening. They then sought to identify common ground or shared experiences. Most frequently they shared information about their personal experiences as parents. Sharing the same language and culture as the family often made it easier to develop the relationship:

> *I talk a little about myself. I find it can be helpful — a small disclosure, not really telling my life story, but a little disclosure, like that I have kids. I have two clients that are not Canadian and it was very helpful for me to tell them something about my experiences because I am also a foreigner. It made it easier to work with them when I told them, "I didn't know any English when I came to Canada and I know exactly how you feel."*

The family visitors explained that it was easier to build relationships with some families than with others. Client characteristics they identified as facilitating this process included openness to the home visit, admission of health or parenting concerns, satisfaction with the parenting role, and positive experiences with other health or social service professionals. Clients who were not open to building a relationship with the family visitor frequently cancelled visits, were not home at the appointed time, or were passive and used avoidance body language during the visit. Clients could also be reluctant to open up if Family and Children Services had referred the family to the family visitor program.

Building Trust

The process of enhanced child and parent development cannot occur until the family trusts the family visitor and feels comfortable with her in their home. To build trust, family visitors tried to keep their appointments with families and arrive on time. They tried to enter the home without an agenda and to make the discussions client-centred and client-directed. The family visitors hypothesized that due to negative life experiences, perhaps even difficult relationships with close friends and relatives, some at-risk clients found it hard to initially trust the family visitor, a virtual stranger in their home. In such a situation, the family visitor often focused on working with the children while the mother looked on:

> *Actually it was easier to get through [to] the children first. The mom chose not to actively participate in the visit but she watched the way I*

> *interacted with her children. I think when she saw how much her children*
> *trusted me, that's really what built the relationship.*

If the client was not ready to focus on the issues of parenting and child development, the family visitor would provide support around the mother's personal issues:

> *She had too much going on and couldn't focus on the children. I think it's*
> *more important for them to really see I'm there for her also, the mother,*
> *and it's taken a really long time to build a relationship with her because*
> *there are a lot of walls to knock down.*

The family visitors said that sometimes the best way to help the family was to provide them with practical assistance or information that made an immediate difference in their lives. They listed many examples of the practical help they provided: locating food, clothing, and transportation; translating; role modelling bedtime and mealtime routines; teaching cooking skills; and accompanying mothers to doctors' appointments, court hearings, case conferences, or parenting classes. One family visitor explained:

> *I picked up clothes for the kids from a clothing drive, and I think just*
> *those types of things really help build a relationship. Now every time I go*
> *she's much more open with me.*

The public health unit supplied family visitors with many resources for their visits, including a selection of toys, craft supplies, videocassettes, and books on childrearing and parenting. Other resources were offered as gifts. These included child-proof safety gadgets, breastpumps, and children's tape recorders. Such gifts helped the home visitor gain access to the family and build the relationship.

Working With Others in the Home

One challenge for the home visitors was developing a relationship with both the mother and other members of the household. Sometimes the family visitor used the presence of a family member to induce the client to work with her:

> *I think that because I'm accepted by the family [the mother] puts a little*
> *bit more trust in me. You can see that the grandparents are really the ones*
> *that influence her.*

More frequently, though, the presence of others in the home during a visit hindered the development of the relationship. The client was either distracted by other activities or withdrew from her interaction with the family visitor and allowed others to take over the conversation. When the presence of others in the home negatively affected the development

of the relationship, the family visitors sought to clarify their role with family members, attempted to involve them in the visit, or offered to meet with the client in a setting other than the home.

If the father was in the home or involved with the children, the family visitor would often encourage him to participate in the visit. In the experience of the family visitors, however, fathers tended to not participate in the visit or to be unsupportive of the mother's participation. In such a situation, if the mother wished to continue seeing the family visitor, meetings would be scheduled at a time (or location) when the father would not be present.

Discussion and Implications for Nursing Practice

Factors found to enable the development of a working relationship were the nurse's role in promoting the program and clearly defining the family visitor role, and the family visitor's ability to establish common ground with the client and identify appropriate trust-building strategies. Personal characteristics of the client and the presence of others during the visit were factors that, if not recognized, could inhibit relationship development.

The family visitors described a process similar to that of professional home visiting: locating clients, gaining physical and emotional entry into their lives, establishing common ground, and building the trust necessary for health promotion (Zerwekh, 1991). One notable difference, however, is that the family visitor's entry into the family was facilitated by a public health nurse. Both the family visitors and the nurses emphasized the importance of establishing trust. Zerwekh also states that trust is the foundation of all interpersonal relationships. Without a trusting relationship, interventions will only be isolated attempts to influence change that may not have any lasting effects and the home visitor will be providing external guidance rather than truly supporting the family (Paavilainen & Astedt-Kurki, 1997).

Given these findings, program planners should ensure that, in the engagement phase, there is room for flexibility in the intensity of home visiting and that nurses are given adequate time to establish rapport and trust with clients prior to involving the family visitor. Nurses must also be allowed sufficient time to support and assist family visitors as they deal with complex issues related to accessing and engaging at-risk families.

Nurse managers should endeavour to hire family visitors who can be matched to families on the basis of cultural background, language,

or life experiences, so that common ground can be established. Training programs developed for family visitors should include sessions on cultural sensitivity, communications skills, and the therapeutic use of self. It may also be beneficial to have both nurses and family visitors attend inservices for the discussion of issues surrounding relationship development and conjoint visiting.

The results suggest that the home visiting nurse should possess both an ability to clearly define the family visitor role and the skills and tools necessary to effectively market the program to target families (i.e., more than leaving a pamphlet). Family visitors have the potential to make a difference in the lives of the families participating in the HBHC program, but it is essential that they be provided with the knowledge and skills necessary to develop trusting relationships. Awareness of the factors identified in this qualitative study may help facilitate this process.

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Authors' Note

Evidence of Adequacy
of Postpartum Care
for Immigrant Women

Deborah Katz and Anita J. Gagnon

Cette étude pilote a été effectuée dans le but de déterminer s'il y a besoin de mener ou non une recherche à grande échelle sur la pertinence des soins postnatals dispensés aux femmes immigrantes chez qui on a décelé certains problèmes sociaux ou de santé. On s'est appuyé sur un modèle descriptif et transversal pour recueillir des données dans les dossiers de santé et d'hospitalisation de 22 femmes immigrantes qui avaient fait, à cause de problèmes sociaux ou de santé, un séjour à l'hôpital plus long que la moyenne (plus de 36 heures). Les résultats révèlent que de 40 % à 100 % des problèmes n'avaient pas été résolus selon ce qu'indiquent les dossiers et que 30 % à 100 % des familles n'avaient pas reçu les soins optimaux présentés dans les manuels. Même en tenant compte des erreurs de mesure attribuables à la consignation des observations dans les dossiers, la rareté des données attestant de la pertinence des soins relatifs à certaines préoccupations précises et des soins postnatals suggèrent que les soins que reçoivent les femmes immigrantes pendant cette période sont peut-être sous-optimaux. Il ressort donc de notre étude qu'il est impératif d'entreprendre une recherche plus vaste pour approfondir ces questions.

Mots-clés : soins prénatals, femmes immigrantes

The purpose of this pilot study was to ascertain the need for a large-scale investigation of the adequacy of postpartum care for immigrant women in whom health and/or social concerns have been identified. A descriptive, cross-sectional design was used to gather data from hospital and community health records of 22 immigrant women who had been found to have health or social concerns requiring a longer than usual postpartum hospital stay (more than 36 hours). The results show that 40% to 100% of concerns were not recorded as having been resolved and 30% to 100% of families were not recorded as having received optimal care as defined in the literature. Even allowing for measurement error due to recording failures, the paucity of recorded data to support adequacy of care for specific concerns and adequacy of postpartum care suggests that immigrant women may be receiving sub-optimal care in the postpartum period. Therefore a larger, more definitive investigation of these issues is imperative.

Keywords: postpartum, nursing care, health services, immigrant, women

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Introduction

Postpartum hospital stays have decreased significantly in the last two decades (Wu Wen, Liu, & Fowler, 1996), resulting in harmful health outcomes when appropriate follow-up has not been assured (Edmonson, Stoddard, & Owens, 1997; Kotagal, Atherton, Eshett, Schoettker, & Perlstein, 1999; Lee, Ballantyne, Elliott, & Perlman, 1994; Lee, Perlman, Ballantyne, Elliott, & To, 1995; Liu, Clemens, Shay, Davis, & Novack, 1997; Lock & Ray, 1999). Inadequate follow-up may be especially detrimental to immigrant women due to cultural, linguistic, and socio-economic factors impacting upon the postpartum experience. Despite this vulnerability, the provision of postpartum care to this population has been markedly under-studied (Kinnon, 1999).

Postpartum Needs of Immigrant Women in an Environment of Short Hospital Stays

The consequences of inadequate post-discharge care following childbirth have been documented extensively (Edmonson et al., 1997; Kotagal et al., 1999; Lee et al., 1994; Lee et al., 1995; Liu et al., 1997; Lock & Ray, 1999) and are most significant for breastfed infants, who may be at greater risk of dehydration in the early postpartum period (Cooper, Atherton, Kahana, & Kotagal, 1995). In order to address these and other health issues, postpartum care should include contact with the mother and infant within 24 hours of hospital discharge and a home visit by a qualified health-care professional within 48 hours of discharge when discharge occurs less than 48 hours postpartum (Society of Obstetrics and Gynaecologists of Canada, 1996), assessment and prevention of early infant dehydration (Health Canada, 2000) and infant jaundice (Melton & Akinbi, 1999), and early provision of breastfeeding support (Sikorski & Renfrew, 2000). Furthermore, postpartum care should include education in family planning (Hiller & Griffith, 2000) and immunization (Nicoll, Elliman, & Begg, 1989) and, in the case of high-risk families, support by a lay worker through home visiting over a lengthy period (Eckenrode et al., 2000; Kitzman et al., 1997; Olds et al., 1998; Olds et al., 1999).

Although there is evidence that these interventions result in improved health, they are not yet being uniformly implemented in North America. As a result, many women are discharged from hospital to an environment of inadequate postpartum care (Soskolne, Schumacher, Fyock, Young, & Schork, 1996; Young, 1996). Although this lack of follow-up care has been shown to have detrimental health outcomes for the general population, there have been suggestions that

immigrants receive more postpartum services because they are perceived to be at greater risk. Little research has been conducted to confirm this assertion or, more generally, to examine the impact of short stays on immigrant women.

Studies of the psychosocial needs of immigrant new mothers in the postpartum period have found that these women frequently feel overwhelmed and socially isolated. Functioning in an alien health-care system and separation from traditional postpartum practices and support networks adds to the postpartum challenges of immigrant women who must simultaneously deal with the physical, psychological, and emotional demands of new motherhood (Barclay & Kent, 1998; Glasser et al., 1998; Nahas, Hillege, & Amasheh, 1999). We were interested in the extent to which optimal postpartum care is being provided to immigrant women with health and/or social complications.

Purpose

The purpose of this pilot study was to determine whether there is any evidence of the need for a large-scale study of postpartum care delivered to immigrant women in whom health and/or social concerns have been identified. We sought to: (1) determine whether documented health and social problems resulting in extended hospital stay of immigrant women and their infants were addressed in the additional time in hospital and thereafter in the community, (2) describe recorded evidence of continuity of care between the hospital and a community health centre, and (3) describe recorded postpartum care delivered in the community.

Design

A descriptive, cross-sectional design was used to gather data from hospital and community health centre records of immigrant women who had been found to have health or social problems requiring a longer than usual postpartum hospital stay (i.e., more than 36 hours). Although family interviews would have provided more extensive data than a record review, we were interested primarily in the existence of *any* evidence to continue this line of inquiry and believed a record review was the most efficient way to gather such evidence.

Sample

All consenting breastfeeding women born outside Canada, living in the catchment area of the community health centre proximal to the hospi-

tal, giving birth between January 1997 and September 1998 inclusive, and requiring a longer than usual postpartum stay were included in the study. Prior to recruitment, approval was obtained from the Research Ethics Committee of the hospital.

Of the 1,393 mother-infant pairs initially to be discharged within 36 hours postpartum, 113 were found to have a health or social issue requiring a hospital stay longer than 36 hours. Of these, 53 had been born outside Canada. Twenty-two of the 53 lived in the catchment area proximal to the hospital. Community health centre records were located for 20 of the 22 families. Thus, although small in number, the 22 families represented all those who met the criteria over the 21-month period, and 90.9% of these families were included in the sample.

Approximately one third (seven out of 20) of these women had been living in Canada for less than 3 years (*range* = 0–3 years). The majority were multiparous (12) and had less than university-level education (15). The average age of the women in the sample was 29.6 (*range* = 22–38 years). There were nine countries/areas of origin represented in the sample: Morocco (4), Central America (3), China (3), Philippines (3), Africa (2), Eastern Europe (2), Grenada (1), Pakistan (1), and United States (1).

Methods

Records of hospital and community care provided to all women in the sample during the first 2 months postpartum were reviewed. Data were coded and organized into three broad categories based on the health or social problems requiring the longer postpartum hospital stay: breast-feeding difficulties, psychosocial issues, or maternal and infant physiological issues.

Data were further coded according to evidence of interventions addressing the problem and evidence of its resolution. Categorization and coding schemes were pre-tested. Data were collected independently by two individuals; disagreements in coding were discussed until consensus was reached. Data were analyzed descriptively.

Findings

Table 1 shows the recorded follow-up care to address the reasons for the longer hospital stay.

In all 20 mother-infant pairs, hospital nurses recorded having addressed the identified concern. For 16 of the 20 pairs (80%), there was

Table 1 *Issues Identified and Addressed by Hospital and/or Community Nurses*

Setting of Care	Reason for Longer Hospital Stay (n = 20 mother-infant pairs)			
	Breastfeeding difficulty $n=8$	Maternal psychosocial issues $n=5$	Infant physiological issues $n=4$	Maternal physiological issues $n=3$
Identified by hospital nurse:	8	5	4	3
– resolution recorded	2	1	1	0
– referred to community health centre	1	2	0	0
Identified by community nurses:	5	1	1	2
– resolution recorded	1	0	0	1

no evidence that the issue had been resolved prior to discharge. For example, if a woman required a longer stay due to a breastfeeding issue, the nurse may have recorded that she addressed the issue (e.g., through a teaching intervention), but there was no record of improvement or resolution. With regard to community follow-up, for 11 pairs (55%) there was no evidence that the issues for which they had required a longer hospital stay had been addressed in the community.

Eight women were excluded from the sample because of breastfeeding difficulties. Resolution of the difficulty was recorded prior to discharge in two women and one additional woman was referred to the community health centre for follow-up. There was no recorded resolution of breastfeeding difficulties in the remaining five women. Of the six women identified in hospital as experiencing unresolved breastfeeding problems, five were still experiencing these problems when they were contacted by the community nurse after discharge, and one had already switched to formula feeding by the time of contact.

In the five women still experiencing breastfeeding difficulties in the community, the nurse recorded having addressed the breastfeeding problems through phone support and/or a home visit in all cases, but resolution of the breastfeeding problem was recorded in only one case. Thus, out of the eight women excluded from the sample because of breastfeeding difficulties, there was no evidence of resolution of the difficulty in four of the women, and one had already stopped breastfeeding before she was contacted by the community nurse.

Community nurses also identified breastfeeding problems that had not been documented previously in the hospital in two additional women. Neither follow-up care nor resolution of these concerns was documented by the community nurse. Both of these women experienced subsequent breastfeeding failure; one of the women presented to the emergency department with a breast abscess at 1 month postpartum and required extensive follow-up by a community wound-care nurse for the abscess-related sequelae.

Thus, a total of 10 women were identified by hospital and/or community nurses as having breastfeeding difficulties, and resolution of these difficulties was recorded in three women. There was one case of breastfeeding failure before the time of first contact by the community nurse and two cases of breastfeeding failure in the first month postpartum. For the remaining four breastfeeding women, resolution was not recorded.

Responses to identified maternal psychosocial issues were similar to responses to breastfeeding difficulties, with evidence of a lack of referral and community follow-up care. Of the five women excluded from the sample due to psychosocial issues, in one case resolution was recorded and two of the remaining four cases were referred by the hospital to the community health centre for follow-up care. Once in the community, the psychosocial issues were addressed in only one of the two women referred. Resolution of this issue was not recorded and the duration of contact was limited to the first week postpartum.

For the remaining three women excluded for psychosocial reasons, there was no evidence that their issues were either addressed or resolved. Furthermore, community nurses identified social isolation in four additional women for whom this issue had not been identified previously in hospital. Thus, in total, psychosocial concerns (most notably anxiety and social isolation) were identified by either hospital or community health nurses in nine women, but were reported to have been resolved in only one case.

Outcome data were available for one woman who had been identified by a community nurse as having psychosocial problems in the early postpartum period: this woman had received no follow-up, and presented several months later to the community health centre with severe postpartum depression. Outcome data regarding the remaining seven women were not recorded.

Of the four cases in which the mother-infant pair was excluded because of infant physiological factors, there was evidence of resolution

in only one case prior to discharge. No cases were referred to the community health centre for follow-up. The community nurse serendipitously identified one of the four cases during her contact with the infant in the community, although resolution of the problem was not recorded.

In the three cases where women were excluded for maternal physiological factors, there was no evidence of resolution prior to discharge and there were no referrals to the community. However, in two of these cases the reason for exclusion was addressed by the community nurse during postpartum visitation. In only one of these cases (a case of postpartum hypertension) was resolution recorded.

Table 2 *Frequency of Recorded Community Health-Care Interventions With Various Levels of Empirical Support*	
Community Health-Care Interventions	**Frequency recorded (per mother-infant pair; *n* = 20)**
Strong Empirical Support	
Contact with mother within 72 hours of discharge	8
Frequent home visitation over a long period for disadvantaged mothers	0 (average duration of contact = 9 days; median = 6.5 days; mode = 1 day)
Breastfeeding support	14 (average of 1.45 instances of support)
Assessment and action specific to prevention of dehydration within 72 hours of discharge	6
Moderate Empirical Support	
Assessment and action specific to increasing immunization rates	10
Assessment and action specific to maternal depression	0
Assessment and action specific to family planning	8
Use of lay persons to promote health	1
Parenting education programs	0

In five cases, community health nurses identified physiologic concerns (two infant and three maternal) that had not previously been recorded in hospital. Only one of each of these concerns was recorded as having been resolved. In total, there were 12 cases in which physiologic concerns were identified by the hospital and/or community nurses, with resolution recorded in only two cases.

Table 2 shows the extent to which recorded care was based on evidence of optimal postpartum care. For 12 mother-infant pairs, there was no evidence of contact within 72 hours nor of interventions to address maternal depression and social isolation. For more than half of the sample, there was no evidence of the women receiving education related to family planning or immunization.

Discussion

The results suggest that there is a need for a large-scale study of the adequacy of health-care services delivered to immigrant women and their newborn infants. The record review conducted here, based on all but two families meeting the inclusion criteria, shows a paucity of recorded data to support adequacy of care for specific concerns and for optimal postpartum care as defined in the literature. From 40% to 100% of problems were not recorded as having been resolved, and from 30% to 100% of families were not recorded as having received optimal care as defined in the literature. Even allowing for measurement error due to recording failures, the very small proportions of documented optimal care and resolution of concerns suggest that sub-optimal care is being provided, which warrants a more definitive investigation.

Such an investigation should: (1) supplement or replace record review as the primary data source with interviewer-assisted or self-report questionnaires, or physical and psychosocial assessments, to determine both maternal concerns and actual care received; provincial and other databases may not be able to capture care received by those women who fall into an immigration class and who thus are precluded from accessing services covered by provincial health plans; (2) be comparative in nature, including immigrant sub-populations in various classes and comparing them to Canadian-born women; (3) ensure representativeness through recruitment of a relatively large sample in which health care is provided by a variety of hospitals and community health centres; (4) analyze potential differences by immigration status, length of time in Canada, language ability, education, socio-economic status, and region of birth.

If the figures reported here were to be supported in a larger study, they would suggest that the problems experienced by immigrant women and their infants in the postpartum period are being inadequately addressed in hospital, infrequently used as a reason for referral to community resources, and inadequately addressed in the community even when the problem is identified or a referral is made. Furthermore, they would suggest that some immigrant women are the recipients of sub-optimal postpartum care, exacerbating the risk of harmful postpartum sequelae in this population. With short hospital stays now commonplace, it is crucial that a rigorously designed assessment of care received by immigrant women postpartum be carried out.

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Authors' Note

Information Needs of Cancer Patients Receiving Chemotherapy in an Ambulatory-Care Setting

Karen K. Lock and Barbara Willson

Cette recherche avait pour but d'évaluer les besoins en matière d'information des cancéreux recevant des traitements de chimiothérapie et de connaître les modes de communication qu'ils privilégient dans le contexte des soins ambulatoires. Les besoins et les préférences des patients ont été mesurés à l'aide d'un questionnaire comportant 17 éléments. L'étude, de nature descriptive, porte sur un échantillon de 101 cancéreux recevant des traitements de chimiothérapie. Les besoins les plus fréquemment exprimés en matière d'information se rapportaient aux sujets suivants : effets secondaires du traitement, information sur les médicaments et stratégies d'adaptation. Certains patients ont indiqué leur préférence pour des renseignements dans leur langue maternelle. Les résultats appuient le recours à l'apprentissage en ligne dans ce contexte. Les patients ont indiqué qu'ils préféraient les rencontres personnalisées avec les infirmières et les médecins comme mode de transmission de l'information. Pour répondre aux besoins particuliers des cancéreux, différentes modalités éducatives devraient être offertes. Les résultats de cette étude devraient servir à orienter les programmes d'éducation au sein des soins ambulatoires en oncologie.

Mots clés : Besoins en information, cancéreux, chimiothérapie, soins ambulatoires

The purpose of this study was to assess the information needs of cancer patients receiving chemotherapy and to explore their preferred styles of receiving education in an ambulatory-care setting. Patient information needs and preferences were measured using a 17-item questionnaire. This descriptive study included a sample of 101 cancer patients undergoing outpatient chemotherapy. The most commonly expressed information needs concerned: side effects of treatment, drug information, and coping strategies. Some patients expressed a preference for information in their primary language. The results support the use of online learning in this setting. Patients identified one-on-one discussion with nurses and doctors as the preferred way to receive information. In order to meet the individual needs of cancer patients, education should be provided in a variety of learning modalities. The results of this study should help to guide patient education initiatives in oncology ambulatory care.

Keywords: Information needs, cancer patients, chemotherapy, ambulatory care

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Introduction

Advances in medical science and cancer care have led to an increased use of chemotherapy in the outpatient setting. Cancer patients receiving chemotherapy require accurate and reliable information in order to adequately perform self-care and cope with the side effects of treatment. The provision of information, a major component of patient education, is therefore an essential and crucial dimension of oncology nursing practice in ambulatory care. Oncology nurses have long recognized the need for patient education in optimizing care. Quality education informs patients and empowers them to safely and effectively manage their self-care needs at home, and thus helps to avoid chemotherapy-related complications (Dodds, 1997).

In the oncology setting, patients have high information needs with regard to their diseases, treatments, and investigative procedures (Graydon et al., 1997). Research evidence suggests that doctors and nurses are the preferred source of information on the management of chemotherapy side effects and that written material is the second most desired source (Nair, Hickok, Roscoe, & Morrow, 2000). Most cancer patients welcome written material in the form of a supplementary cancer information booklet (Iconomou, Viha, Koutras, Vagenakis, & Kalofonos, 2002). The provision of accurate and relevant information to patients can lead to such outcomes as reduced emotional distress, enhanced self-care ability, and increased participation in usual activities (Graydon et al.; Poroch, 1995). Furthermore, information about the diagnosis, prognosis, and treatment can effect such positive patient outcomes as satisfaction with communication, emotional well-being, enhanced coping, and functional adjustment (Iconomou et al.).

Purpose

The purpose of this study was to assess the specific information needs of cancer patients receiving chemotherapy and to elicit their preferred ways of receiving information in an ambulatory-care setting at a large Canadian cancer hospital. There is limited clinical research evidence on the information needs of cancer patients receiving outpatient chemotherapy. Hence, the aim of this study was to contribute to nursing knowledge and to help guide oncology patient education in ambulatory care.

Methods

This descriptive study used a questionnaire and convenience sampling to explore the information needs of cancer patients receiving chemotherapy.

Setting and Sample

Princess Margaret Hospital, a member of the University Health Network, is a large, comprehensive cancer centre located in Toronto, Ontario. Over 90 patients attend the ambulatory chemotherapy clinic daily for chemotherapy, intravenous antibiotics, hormonal injections, minor procedures, and blood transfusions. This study took place in the clinic over a 2-week period in July 2002. Cancer patients scheduled for outpatient chemotherapy were approached during their routine appointments by the first author and were invited to participate in the study. Due to the limited availability of the first author, not all patients scheduled for chemotherapy were recruited for the study. The eligibility criteria for participation were: over 18 years of age; undergoing chemotherapy, regardless of the number of treatments received prior to the study; and able to understand written and spoken English, or have someone who could interpret and assist in completing the questionnaire. The final sample consisted of 101 men and women with various types of cancer. The demographic and clinical characteristics of the sample population were collected (see Table 1 for sample characteristics). The majority of participants (49.5%) were between the ages of 50 and 69 and there was no significant difference between the numbers of men ($n = 54$) and women ($n = 47$). The most common diagnoses (gastrointestinal and breast cancers) were the same as those for the entire clinic population in the previous year (McCullagh, 2001).

Measures and Procedure

The first author approached patients in the clinic waiting area and introduced herself as a staff nurse conducting a research project. The purpose of the study, as explained to all potential participants, was to explore the information needs of patients receiving chemotherapy with the goal of improving patient education within the institution. Patients were told that participation was voluntary. They were also told that all information collected would remain confidential and anonymous, and that only group data would be disclosed in the final report. In addition, they were told that they would be free to withdraw from the study at any time and that refusal to participate would not affect the care and treatment they received in the clinic. Verbal consent was obtained prior to administration of the questionnaire and contact information of the first author was provided for future inquiries. Most patients completed the questionnaire while awaiting their treatment in the waiting area. For patients who preferred to complete the questionnaire in the privacy of their own home, a self-addressed envelope was provided for them

Table 1 *Demographic and Clinical Characteristics of Patients*
(N = 101)

Variable	Number of Respondents (*n*)	Characteristic	Number (%)
Person who completed survey	101	Patient	93 (92.1)
		Family/friend	8 (7.9)
Age	100	< 30	5 (5.0)
		30–49	21 (20.8)
		50–69	50 (49.5)
		> 70	24 (23.8)
Gender	101	Male	54 (53.5)
		Female	47 (46.5)
Education	96	Elementary school	11 (10.9)
		High school	40 (39.6)
		College/university	29 (28.7)
		Graduate	16 (15.8)
First language	97	English	59 (58.4)
		Italian	7 (6.9)
		Chinese	6 (5.9)
		Other	25 (24.8)
Computer/ Internet access	96	Yes	60 (59.4)
		No	36 (35.6)
Diagnosis (cancer)	83	Gastrointestinal	27 (26.7)
		Malignant hematology	15 (14.9)
		Breast	13 (12.9)
		Prostate	9 (8.9)
		Lung	6 (5.9)
		Gynecological	5 (4.9)
		Genitourinary	4 (4.0)
		Other	4 (4.0)
Chemotherapy experience	96	Yes	65 (64.4)
		No	31 (30.6)

to return it at the next appointment. Of the patients who were approached, 104 consented to participate and three of those did not return their questionnaires. Of those who declined to participate during the recruitment phase, most stated that they were not interested, too ill, or unable to read English.

The questionnaire consisted of 17 items, as follows: (a) eight questions exploring background information and demographics (see Table

1 for question variables); (b) five close-ended questions measuring information needs and preferences (whether any printed or online information was received before the first treatment, types of information received prior to treatment, preferred language for receiving educational resources, types of information preferred before the first chemotherapy appointment, and interest in attending an education session); (c) two open-ended questions (suggested topics for chemotherapy education and perceived information needs of new patients); (d) one rank-ordering question to determine preferred sources of information; and (e) one open-ended question for comments. On average, the participants took approximately 10 minutes to complete the questionnaire. The questionnaire was developed in collaboration with experts in nursing research and patient education at Princess Margaret Hospital and received the approval of the institution's Chemotherapy Daycare Quality Committee. To ensure readability, it was consumer tested prior to commencement of the study. Three patients were selected from the same clinic to review the questionnaire, and revisions were made based on their feedback.

Data Analysis

The first author entered all data using Microsoft Access. A data analyst was consulted to verify the accuracy of data entries and results. The quantitative analysis of all demographics and close-ended questions was based on the percentages generated by Microsoft Excel. With respect to the qualitative data collected from the open-ended questions, content analysis was performed to determine predominant themes and categories (Burns & Grove, 2001). The first author coded all major themes and verified these with the second author. The occurrences of each theme were then compiled using Excel.

Results

Eight questions explored the information needs of cancer patients receiving chemotherapy in the ambulatory clinic. The first two concerned various information needs. Over 57% of patients had received information about chemotherapy prior to their first chemotherapy session in the clinic; more than 80% were aware of how chemotherapy would be administered, the side effects associated with chemotherapy, and ways to prevent and control adverse side effects. Only 38% of patients received information about types of resources and support services available at the hospital; 30% received information regarding transportation.

Table 2 *Preferred Styles of Information Among Patients Receiving Chemotherapy*

Types of Information	Variables	Number of Respondents (%)
Preferred source of information (n = 24) (1 = most important; 6 = least important)	1. One-on-one discussions with nurses or physicians	15 (63)
	2. Printed materials	12 (50)
	3. Audiotapes/videotapes	7 (29)
	4. Internet	9 (38)
	5. CD-ROM/computer programs	6 (25)
	6. Formal education session	11 (46)
Preferred learning modalities (n = 63) (participants were asked to choose as many modalities as they wished)	Printed materials on chemotherapy and side effects	53 (84)
	Orientation booklet for Chemotherapy Daycare	42 (67)
	Online patient information on hospital Web site	25 (40)
	Videotape about chemotherapy	16 (25)
	Virtual tour of the clinic on hospital Web site	16 (25)
	Guided tour of the clinic	13 (21)
	Education session	13 (21)
	CD-ROM	10 (16)
	Information from other Web sites	4 (6)

As shown in Table 1, 37.6% of patients identified English as their second language. Interestingly, in the item concerning preferred language for educational resources, 71% chose English. In one open-ended question, the patients were asked to identify specific treatment-related topics they wished to know more about. For this question the response rate was 38% and three major information categories were identified: (a) side effects, (b) drug information, and (c) coping strategies. In another open-ended question, patients who had received chemotherapy previously were asked to select the main information needs of chemotherapy-naïve patients. The response rate for this question was 47% and the three major categories were: (a) side effects of chemotherapy, (b) chemotherapy procedure and administration, and (c) coping strategies. The responses to these questions demonstrate the similarities and differences in the information needs of patients with and without previous chemotherapy experience.

The last three questions explored the patients' preferred information styles, the characteristics of which are summarized in Table 2. One question used rank ordering to identify patients' preferred sources of information. The participants were asked to rank their preferences from the lowest value (1 = most important) to the highest (6 = least important). This question had a response rate of 88%; however, only 24 participants answered the question accurately. One-on-one discussions with nurses or physicians was the highest-ranked source. The second choice was printed materials, followed by audiotapes/videotapes, Internet, CD-ROMs/computer programs, and, lastly, a formal education session. Patients were then given nine suggested learning modalities and were asked to choose as many as they wished. The modalities were: (a) printed materials on chemotherapy and the management of side effects (84%); (b) an orientation booklet with information on the department, information on hospital services, and a brief introduction to other support programs at the institution (67%); (c) online patient information on the hospital Web site (40%); (d) a videotape about chemotherapy (25%); (e) a virtual tour of the clinic on the hospital Web site (25%); (f) a guided tour of the clinic (21%); (g) an education session (21%); (h) CD-ROMs in the patient library (16%); and (i) information from other Web sites (6%).

Finally, the issue of receiving information through a formal education session was addressed. Twenty-seven percent of patients ($n = 27$) indicated that they would attend an education session. This response, together with the responses to the two previous questions, indicates only moderate support for an education session in the clinic. Content analysis of the open-ended question revealed four major reasons why

the participants did not favour such a session: (a) they had already received enough information, (b) the session was best suited to new patients, (c) language barriers, and (d) problems with transportation.

Discussion

The findings of this study suggest that the education of cancer patients receiving outpatient chemotherapy must address the side effects of treatment, drug information, and coping strategies. Patients with no previous chemotherapy experience must also be given information on treatment procedure and drug administration. These results validate the findings of a study conducted by Jazieh and Brown (1999) into the education of cancer patients with regard to treatment and treatment-related side effects. The patients in the present study had, for the most part, been informed about their chemotherapy by their medical oncologists and ambulatory-care nurses. However, they could have used more information regarding support services and transportation. The survey found that patients wished to have more information, especially through one-on-one discussions with their health-care professionals. This finding supports that of Nair et al. (2000), who found doctors and nurses to be the preferred sources of information. In order to optimize patient-care outcomes, it is important for oncology nurses to continuously reinforce appropriate educational information by engaging in one-on-one discussions with patients during routine nursing care.

The language data collected indicate that some patients prefer to receive information in their primary language, implying that oncology nurses should find ways to tailor education to the different cultural and linguistic needs of patients.

In this era of information technology, the results confirm the benefits of online learning. More than half of the participants had access to a computer and many chose the hospital patient-education Web site as the preferred means of obtaining information. Hence, hospitals should consider providing quality online information that is accessible to patients.

Jazieh and Brown (1999) suggest that patient education is enhanced if the information is provided both verbally and in written form. The participants in the present study expressed a preference for one-on-one discussions with their doctors or nurses. This finding is congruent with the results of a 1998 study with patients undergoing radiation therapy at the same hospital (B. Willson, personal communication, August 9, 2002). Thus, if patient-focused care is the priority, ways must be found

to engage oncology nurses, doctors, and other health-care professionals in one-on-one discussions with patients, and to provide patients with high-quality treatment-related literature.

Although the need for an education session was not well supported in this study, oncology nurses should, in future research, explore various strategies to enhance the delivery and quality of education sessions. As indicated by the participants, such sessions might be more suitable for patients with no previous chemotherapy experience. Since most participants expressed a preference for one-on-one discussions, the education sessions could, alternatively, be transformed into small group discussions in order for patients to receive more individualized information and attention.

Nurses should offer patients different kinds of information to facilitate learning and enhance patient education. This study has identified various learning modalities for cancer patients. Nair et al. (2000) also support the use of different learning modalities in order to offer patients different perspectives on their diseases and treatments.

Limitations

The study had a number of limitations. The environment of the clinic waiting area contributed to extraneous factors influencing the study. The high volume of patients and level of noise in the clinic could affect the cognitive process of some individuals. In addition, it is unclear whether the emotional or physical state of participants could have influenced the responses (Burns & Grove, 2001).

The questionnaire was designed using expert opinion only. It had not undergone rigorous validation processes in order to establish internal consistency and reliability. The question using the rank-ordering method in exploring patients' preferred information styles was poorly completed. It is unclear whether this was because the patients had difficulty understanding the question or because the instruction was inappropriate. Also, the response rates were low for the open-ended questions as compared to the close-ended questions. Since the questionnaire consisted of 17 items, the cognitive demand might have been overwhelming for already fatigued cancer patients.

The total number of patients approached during recruitment was not documented; thus, the response rate for the survey is unavailable. This study used a convenience sample and excluded patients who could not speak and read English without an interpreter. The various stages of cancer treatment and different diagnoses of the participants

contributed to the heterogeneity of the sample. Graydon et al. (1997) note that the information needs of patients can change over the course of treatment. Therefore, the present findings may not be representative of all groups of chemotherapy patients. Furthermore, the sample was limited to one teaching hospital; hence, the results may not be generalizable to other populations of cancer patients.

Implications for Nursing Practice and Research

This study was designed to support implementation of the *Nursing Best Practice Guideline in Client Centred Care* (Registered Nurses Association of Ontario, 2002) at the authors' institution. Encouraging patients to identify their information needs and incorporating their goals and wishes into the delivery of care is consistent with the future direction of patient education initiatives at the institution. A commitment to excellence in patient care and education entails discovering and addressing the individual needs of patients. The use of the present research findings in designing patient education will serve to enhance patient outcomes in the ambulatory oncology setting. In addition, the study was undertaken with a view to stimulating an interest in nursing research among oncology nurses in the chemotherapy clinic at the institution.

Conclusions

In spite of the limitations of this study, the results indicate that cancer patients have specific preferences with regard to cancer and treatment-related information, and favour one-on-one interactions with their health-care providers. The findings provide valuable information about online learning within the cancer population. However, this area should be the focus of future research, with the goal of developing a computer-based education program for cancer patients undergoing chemotherapy.

This study offers useful information to enhance patient care and guide future initiatives in an oncology ambulatory-care setting. In addition, the findings contribute to the areas of cancer nursing and patient education.

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Authors' Note

Symptoms and Distress in Patients Awaiting Coronary Artery Bypass Surgery

Kim M. McCormick, Barbara J. Naimark, and Robert B. Tate

Dans cette étude sur la sévérité des symptômes éprouvés par les patients en attente d'un pontage aortocoronarien, on a joint par le courrier 42 patients inscrits pour la première fois sur une liste d'attente pour cette seule intervention dans le but de constituer un échantillon de commodité, dans le cadre d'un projet de recherche plus vaste portant sur l'attente. On a demandé aux participants de répondre à certaines questions concernant la fréquence des symptômes de maladie coronarienne qu'ils éprouvaient et leur degré de souffrance. Ces données ont été analysées à l'aide d'une version modifiée de l'instrument *Symptom Frequency and Symptom Distress Scale (SFSDS)*. Le score moyen était de 77,7 sur un total possible de 385. On a établi de fortes corrélations entre chacun des éléments sur l'échelle et le score total. Les symptômes les plus fréquents et pénibles qui ont été rapportés sont la fatigue, l'essoufflement pendant l'activité et les douleurs à la poitrine. Les symptômes les plus fréquents étaient également les plus pénibles. Ces résultats soulignent l'importance des symptômes éprouvés par les patients en attente d'un pontage aorto-coronarien et confirment la nécessité de continuer à tester cette version de l'instrument *SFSDS*.

Mots clés : sévérité des symptômes, maladie coronarienne, échelle

In this examination of symptom distress in patients awaiting coronary artery bypass graft (CABG) surgery, a convenience sample of 42 patients on a waiting list for first-time CABG-only surgery were contacted via mail as part of a larger study into the experience of waiting for CABG surgery. They were asked to respond to questions about the frequency and distress of their coronary artery disease symptoms. A modified version of the Symptom Frequency and Symptom Distress Scale (SFSDS) was used. The mean symptom distress score was 77.7 out of a possible 386. Strong correlations were established between each individual item on the scale and the total score. The most frequent and distressing symptoms were fatigue, shortness of breath with activity, and chest pain. The most frequent symptoms were also the most distressing. The findings underscore the significance of symptom experience in patients on a waiting list for CABG surgery and also point to the need for further testing of this version of the SFSDS.

Keywords: coronary artery disease, symptom distress, rating scale

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Coronary artery bypass graft (CABG) surgery has been hailed as a procedure that can save lives as well as improve quality of life. Over 18,000 CABG operations are performed in Canada every year, and trends suggest that these numbers will continue to increase (Heart and Stroke Foundation, 1999). Lengthy waiting lists for CABG surgery indicate that increasing capacity has not kept pace with the demand for treatment. During the waiting period for surgery, patients often remain symptomatic and functionally impaired (Bengtson, Herlitz, Karlsson, & Hjalmarson, 1994, 1996). Symptom status and response to therapy are the main criteria used to prioritize patients on CABG waiting lists (Naylor et al., 1991), but little is known about how patients' symptoms affect their psychological status during the waiting period.

The primary measure of symptom severity in relation to functional status in research is either the New York Heart Association (NYHA) Functional Classification or the Canadian Cardiovascular Society (CCS) Grading Scale for Angina Pectoris. Cox, Naylor, and Johnstone (1994) note that there are several limitations to the NYHA and CCS scales. First, they do not show whether a patient's symptoms are episodic or variable. Second, they are unable to account for a patient's perspective on or individual tolerance level of symptoms. Both scales are graded by physicians based on patients' descriptions of their physical limitations and on patients' symptom status. Third, they do not provide any information on how symptoms progress. Gradual deterioration in physical functioning may go unnoticed by patients until a successful treatment significantly improves their abilities. This is especially significant when examining the use of a scale that is not graded by self-report. Moreover, the assumption that there is physiological equivalence among patients at each level of functional/angina status is unvalidated and no statistical relationships have been found between these scales and disease prognosis, severity of anatomical disease, or quality of life (Cox et al.; Cronin, 1990).

Measuring symptom distress in conjunction with frequency of symptoms may be a more satisfactory means of assessing symptomatology in coronary patients. Symptom distress can be defined as "the degree of discomfort reported by the patient in relation to their perception of the symptoms being experienced" (McCorkle & Young, 1978, p. 374). It has been observed that frequency or intensity of symptoms is often equated with symptom distress but the most intense or frequently occurring symptoms are not always the most distressing (Lough, Lindsey, Shinn, & Stotts, 1987; McClement, Woodgate, & Degner, 1997).

Cardiac symptoms are a continual reminder to patients of their illness. Symptom experience may prompt patients' continuing concern about their health (Cronin, 1990) as well as significantly influencing their psychosocial adaptation to disease as they await CABG surgery. The purpose of this study was to examine symptom distress in patients waiting for CABG surgery. The study was part of a larger, multi-method investigation examining the experience of waiting for CABG surgery.

Theoretical Framework

The theoretical framework for this investigation was Mishel's Middle-Range Nursing Theory of Uncertainty in Illness (Mishel, 1988), according to which the appraisal of symptoms acts as an antecedent to illness uncertainty. The symptom-pattern component of this model refers to the degree to which symptoms present with sufficient consistency to form a clear pattern. Vague, ambiguous, unpredictable, and inconsistent characteristics of the cardiac symptoms experienced may create uncertainty. This model was chosen to guide the larger study, which also examined the relationship between uncertainty and symptom experience. This paper takes an isolated look at the symptom experience of patients awaiting CABG surgery and explores the usefulness of a tool modified to measure this concept.

Method

Procedure

After approval had been obtained from the University of Manitoba Nursing-Education Research Ethics Board and access to the study population had been granted by the Winnipeg Regional Health Authority, potential participants were identified from a cardiac surgery waitlist database. Individuals waiting for first-time, CABG-only surgery at a tertiary-care teaching hospital were invited by mail to participate in the study. After allowing a period of time sufficient for potential participants to decline, a questionnaire package was mailed to the remaining individuals. Those who returned the completed questionnaire were asked to sign a consent form permitting the researchers to examine their personal cardiac surgery database and to contact them by telephone.

Sample

The sample was restricted to patients waiting for first-time, CABG-only surgery. Criteria for inclusion were: 18 years of age or older, ability to

read and write English, and waiting at home or out of hospital for surgery.

Data collection took place over a 5-month period from January 2001 to May 2001 inclusive, with recruitment conducted in two separate convenience samplings (January 11 and April 26) to obtain a variety of patients who had waited varying lengths of time for CABG surgery. A total of 66 patients (41 from the January sampling and 25 from the April sampling) met the criteria and were mailed the introductory letter. Six patients (9%) indicated that they were not interested in participating. Six others (9%) were not mailed the package because they had surgery or were taken off the list in the interim between the mailing of the introductory letter and the time allotted for refusal. Of the remaining 54 potential subjects, 45 returned the questionnaire (for a response rate of 83.3%). Three of the returned questionnaires were eliminated from the analysis when close examination revealed that they did not meet the study criteria ($N = 42$).

The Symptom Frequency and Symptom Distress Scale

The Symptom Frequency and Symptom Distress Scale (SFSDS) was first developed for use in heart-transplant patients by Lough et al. (1987) in relation to immunosuppressive therapy. This self-administered scale is described as being suitable for distribution by mail and assesses physical symptoms experienced and emotional distress caused by the symptoms. A five-point Likert scale (0 = never; 4 = always) is used to measure subjectively assessed frequency of symptoms, while a parallel scale (0 = not at all upsetting; 4 = extremely upsetting) is used to measure the perceived level of associated distress. Cronbach's alpha was found to be .70 for the transplant-symptom frequency scale and .87 for the corresponding distress scale.

For the purposes of this study, the SFSDS was modified to represent symptoms of coronary artery disease and heart failure as identified in the medical and nursing literature and from the principal researcher's extensive experience with individuals with coronary disease symptoms. Experienced cardiac clinicians assessed the modified scale as having face validity.

The modified SFSDS was scored by multiplying the symptom frequency score with the symptom distress score for each item and adding the total score. This is a modification of the scoring method described by Lough et al. (1987). With this method, total scores can range from 0

to 368, with higher scores indicating greater distress. Each symptom can also be used as a separate subscale of the SFSDS.

Results

An evaluation of the demographic characteristics of the sample revealed that the mean age of participants was 64 years (*SD* = 8.5) and that the majority of participants were male (90.5%) and lived at home with a partner (71%). Ninety-five percent had at least one myocardial infarction (57% had two or more), 73% suffered from Class III angina or worse according to the CCS, 95% had a left ventricular ejection fraction (EF) of less than 50% (22% had EFs of less than 35%), and 77% were waiting for CABG on three or more vessels. The average wait, from the date placed on the waiting list to the date of questionnaire completion, was 97 days (*SD* = 61; *range* = 23–260 days).

Figure 1 shows a histogram of the total scale scores for the sample, with score distribution heavily skewed to the left or lower one third of the possible total scale scores. The mean symptom distress score in this sample was 77.7 (*SD* = 60; *range* = 7–286) out of a possible 368. Eighty-two percent of the scores clustered in the lower one third of the range of scores identified for this scale.

Figure 1 *Distribution of Scores on the Symptom Frequency and Symptom Distress Scale*
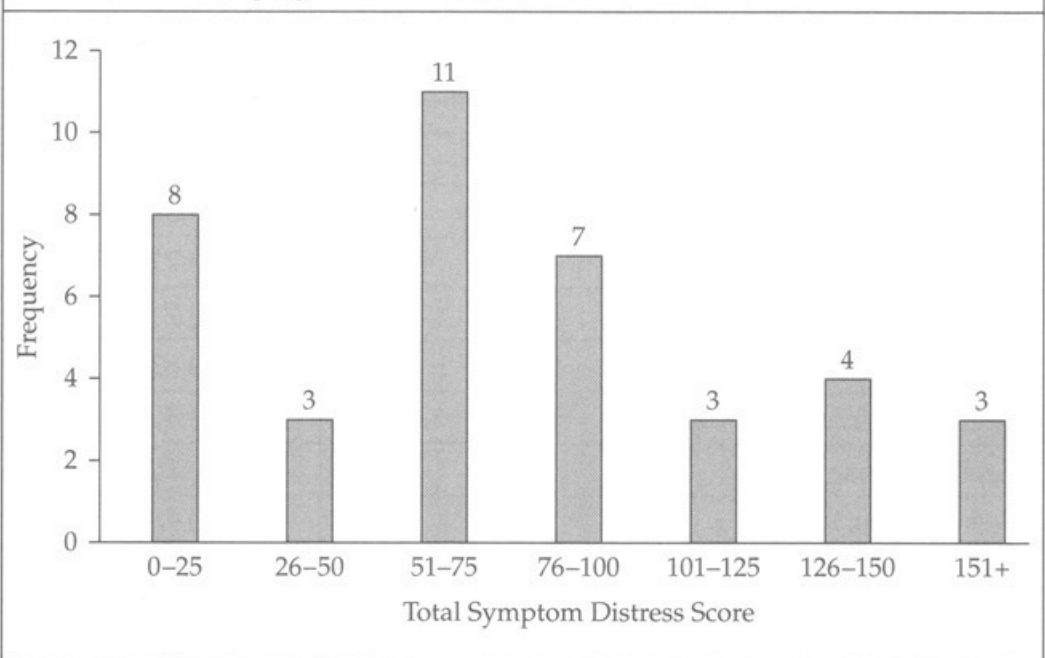
Table 1 presents the Pearson's *r* item-to-total correlation as a test of reliability for this version of the SFSDS. All symptoms had significant item-to-total correlations, with the majority having *p* values of .0001 or less. The exceptions were feeling fearful and panic spells, which correlated at .002.

Table 1 *Pearson's r Item-to-Total Correlation for the SFSDS*

Symptoms	SFSDS Total Score Correlation
Chest discomfort	0.69**
Arm/shoulder discomfort	0.68**
Back/neck discomfort	0.68**
Jaw/throat/tooth discomfort	0.68**
Indigestion	0.68**
Generalized discomfort	0.76**
SOB with activity	0.69**
SOB lying flat	0.75**
Nocturnal SOB	0.64**
Dizziness/lightheadedness	0.60**
Palpitations	0.61**
Irregular heart rate	0.75**
Fatigue	0.68**
Edema	0.57**
Difficulty sleeping	0.64**
Nausea	0.58**
Loss of appetite	0.71**
Depressed mood	0.73**
Nervousness/shakiness	0.82**
Feeling fearful	0.47*
Feeling tense	0.70**
Panic spells	0.48*
Restlessness	0.78**
* $p = .002$, ** $p = < .0001$.	

Table 2 *Rank Order of Scores Related to Frequency of Symptoms, Level of Distress, and Combined Symptom Distress of Individual SFSDS Symptoms for the Total Sample*

	Frequency (Rank Score)		Distress (Rank Score)		Combined Symptom Distress (Rank Score)
1	SOB with activity (118)	1	Fatigue (108)	1	Fatigue (350)
2	Fatigue (116)	2	SOB with activity (106)	2	SOB with activity (345)
3	Chest discomfort (100)	3	Chest discomfort (93)	3	Chest discomfort (249)
4	Back/neck discomfort (81)	4	Depressed mood (80)	4	Depressed mood (205)
5	Sleeping problems (77)	5	Generalized discomfort (78)	5	Sleeping problems (191)
6	Generalized discomfort (74)	6	Arm/shoulder discomfort (75)	6	Generalized discomfort (175)
6	Depressed mood (74)	7	Dizziness/lightheadedness (69)	7	Back/neck discomfort (171)
8	Arm/shoulder discomfort (73)	8	Sleeping problems (68)	8	Arm/shoulder discomfort (168)
9	Indigestion (71)	9	Back/Neck discomfort (67)	9	Indigestion (167)
10	Feeling tense (68)	9	Feeling fearful (67)	10	Dizziness/lightheadedness (165)
11	Restlessness (67)	9	Feeling tense (67)	11	Feeling tense (155)
12	Dizziness/lightheadedness (65)	12	Restlessness (65)	12	Nervousness/shakiness (150)
13	Nervousness/shakiness (57)	13	Indigestion (59)	13	Restlessness (148)
13	Feeling fearful (57)	13	Nervousness/shakiness (59)	13	Feeling fearful (148)
15	SOB lying flat (47)	15	SOB lying flat (53)	15	SOB lying flat (116)
16	Palpitations (45)	16	Palpitations (45)	16	Palpitations (95)
17	Edema (39)	17	Nocturnal SOB (39)	17	Edema (86)
18	Irregular heart rate (33)	18	Irregular heart rate (32)	18	Irregular heart rate (82)
18	Nocturnal SOB (33)	19	Edema (31)	19	Nocturnal SOB (80)
20	Nausea (29)	20	Nausea (29)	20	Nausea (52)
21	Jaw/throat/tooth discomfort (24)	21	Panic spells (28)	21	Panic spells (49)
22	Loss of appetite (23)	22	Jaw/throat/tooth discomfort (19)	22	Loss of appetite (42)
23	Panic spells (22)	23	Loss of appetite (17)	23	Jaw/throat/tooth discomfort (33)

Ranking was also possible for the most to least frequent symptoms, the most to least distressing symptoms, and the most to least combined symptom distress scores for each symptom. This analysis is represented in Table 2 and includes the rank score for each symptom in each category. Three comparable lists of symptom rankings are exhibited here. Table 2 shows that the most frequent symptoms were also the most distressing symptoms in the sample. The relationship between individual-symptom frequency and individual-symptom distress is clarified in Figure 2, where individual-symptom frequency for the total sample

Figure 2 *Frequency and Distress Scores for 23 Symptoms*
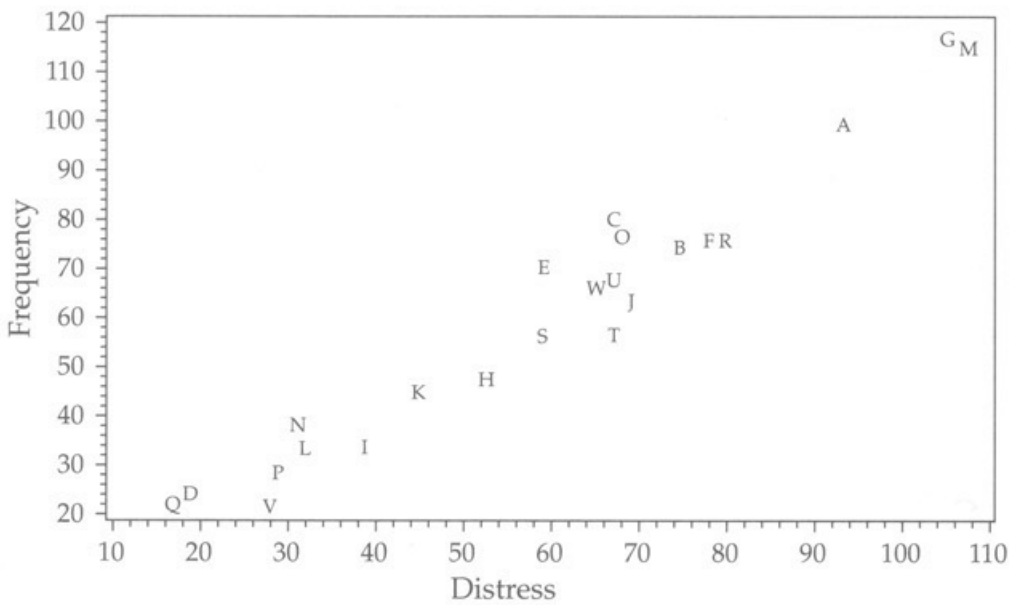
Legend: Plot of individual symptom frequency and individual symptom distress for total sample

A Chest discomfort
B Arm/shoulder discomfort
C Back/neck discomfort
D Jaw/throat/tooth discomfort
E Indigestion
F Generalized discomfort
G SOB with activity
H SOB lying flat
I Nocturnal SOB
J Dizziness/lightheadedness
K Palpitations

L Irregular heart rate
M Fatigue
N Edema
O Sleeping problems
P Nausea
Q Loss of appetite
R Depressed mood
S Nervousness/shakiness
T Feeling fearful
U Feeling tense
V Panic spells
W Restlessness

(on the vertical axis) is plotted against individual-symptom distress for the total sample (on the horizontal axis). Figure 2 shows a linear relationship between the frequency and distress of a particular symptom, providing confirmation that the most frequent symptoms are also the most distressing.

Although most symptoms were associated with some distress, it was possible for a symptom to occur frequently yet be rated as *never* distressing, resulting in a combined symptom distress score of zero even though the symptom was present. The reverse also occurred in that some participants indicated that they *never* experienced a given symptom yet rated the distress for that symptom higher than zero. Because multiplying a value by zero elicits a score of zero, there was initial concern that assigning an overall distress score of zero to a symptom that a patient identified as significant would alter the total SFSDS score. The similar ranking of symptoms in three categories (frequency, distress, and total), as shown in Table 2, indicates that this was not the case.

Discussion

Although the majority of scores clustered in the bottom third of the scale (82%), 62% of the subjects also participated in a qualitative telephone interview during which symptoms were identified as a key source of anxiety in the waiting period. The relief of symptoms was identified as important to the relief of anxiety, thus establishing a link between the presence of symptoms and psychological distress (McCormick, 2002).

There are several possible explanations for the low distress scores as measured by the SFSDS. First, this version of the SFSDS was designed to include all possible symptoms of coronary artery disease and their various manifestations. Not all symptoms on the scale will be relevant for all patients, and it is inevitable that several symptoms will be rated zero (in both frequency and distress) for each patient. Second, true symptom distress may realistically be low due to proper medical and patient self-management during the waiting period. As well, the chronic nature of cardiac symptoms may have influenced the distress scores. Many patients would have been living with cardiac symptoms for many years prior to being placed on the CABG waiting list and may have adapted to living with the somatic effects of cardiac disease. As a result, adaptation to symptoms may have influenced the levels of distress that patients associated with each individual symptom because they have adjusted to a life that includes cardiac symptoms. A few of

the telephone interviewees, when asked about their symptoms during the waiting period, indicated that their symptoms had been present for a long time prior to the waiting period and they dealt with them as a part of daily living (McCormick, 2002). The phenomenon of accommodation to cardiac symptoms has been identified in prior research (Radley, Green, & Radley, 1987). This scale may be useful in detecting subtle but serious deterioration in a patient's condition that, because of accommodation, would ordinarily go unrecognized by the patient and would not be reported to the health-care team.

Although it has been observed with cancer patients (McClement et al., 1997) and heart-transplant recipients (Lough et al., 1987) that the most frequent symptoms are not necessarily the most distressing, such was not the case in this study. The SFSDS results show that individual symptoms rated for frequency, distress, and combined-symptom distress produced similar lists. The three most frequent and distressing symptoms experienced by the sample were fatigue, shortness of breath with activity, and chest discomfort. This finding is consistent with that of Jonsdottir and Baldursdottir (1998). Because the most frequent symptoms were also the most distressing, it is possible that measuring frequency alone might be equivalent to measuring an overall symptom-distress level. However, more research is needed before it can be confidently suggested that the frequency or distress level of a symptom alone is equivalent to overall symptom distress for coronary artery disease populations.

The present results are limited by the untested nature of the Symptom Frequency and Symptom Distress Scale as modified for this project. Further information about and revisions to the scale will be necessary to evaluate its usefulness in this population of patients, as well as to identify what constitutes mild, moderate, and severe symptom distress. Scoring of the scale also requires re-examination, and a factor analysis using a large sample of patients with a variety of cardiac conditions would be a useful way of statistically assessing this instrument. Because many of the symptoms included in the scale could be non-cardiac in origin (e.g., indigestion, back/neck discomfort), it is essential to identify which symptoms most clearly represent the patient's total cardiac symptom distress.

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Authors' Note

Spirit of the Drum:
The Development of
Cultural Nursing Praxis

Pertice Moffitt and Judith Wuest

L'intégration de la culture est une dimension essentielle de la formation en sciences infir-mières et de la pratique auprès de populations variées. Les enseignantes et les étudiantes qui évoluent dans des classes multiculturelles doivent adopter des comportements sensibles aux différences, qui valorisent l'identité culturelle et l'importance des soins adaptés à celles-ci tant dans la salle de classe que dans le milieu clinique. On a eu recours à l'évaluation de quatrième génération décrite par Guba et Lincoln pour évaluer le volet culturel d'un programme en sciences infirmières offert dans le Nord canadien. Les résul-tats indiquent qu'il faudrait adopter un processus d'intégration des différences par l'inter-médiaire de la relation infirmière-client, ainsi que des manières d'être. L'article traite également des implications que comporte, pour la formation et la pratique en sciences infirmières, l'intégration de la politique en matière de savoir-faire culturel du gouverne-ment des Territoires du Nord-Ouest, telle que décrite dans le *Northern Knowledge Model*.

Mots-clés : savoir-faire culturel, intégration de la culture, formation

The integration of culture is essential for nursing education and practice with diverse populations. Educators and students in the multicultural classroom must adopt cultur-ally responsive behaviours that validate cultural identity and enhance cultural caring both in the classroom and in clinical areas. Fourth-generation evaluation as described by Guba and Lincoln was used to evaluate the cultural curriculum of a nursing program in northern Canada. The findings suggest that we should adopt a process of integrating difference through the nurse-client relationship and ways of being. Implications for including the traditional knowledge policy of the government of the Northwest Territories in nursing education and practice, as depicted in the Northern Knowledge Model, are discussed.

Keywords: cultural competence, integration of culture, cultural evaluation, education

Although culturally competent nursing care is of fundamental impor-tance to nursing practice (Campinha-Bacota, 1999; Meleis, 1996; Purnell & Paulanka, 1998), little research has been conducted on the ways in which culture is integrated in nursing practice and what constitutes cul-turally appropriate care for subarctic aboriginal people. Such knowl-edge is paramount when working in Canada's Northwest Territories,

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where the majority of clients are indigenous and the majority of health-care providers are white mainstream Canadians. In this paper, we provide an overview of the findings of a qualitative participatory study conducted in a northern community to evaluate the ways in which and degree to which recently graduated nurses integrate culture into their practice, and to determine what is and what is not effective in facilitating the learning of culturally appropriate care.

Literature Review

Most of the research and theoretical literature to date has focused on identifying the beliefs, values, and traditions of specific cultures and on developing assessment tools that will assist nurses in providing care that is culturally sensitive and appropriate (Andrews & Boyle, 1999; Davidhizar & Giger, 1998; Leininger, 1995). Cultural competence has been proposed as a process for guiding nurses towards culturally appropriate outcomes (Campinha-Bacote, 1999; Purnell & Paulanka, 1998). Cultural brokerage has been described as a way of reconciling diversity and resolving conflict (Jezewski, 1995; O'Neil, Koolage, & Kaufert, 1988; Paine, 1971). Jezewski defines culture brokering as "the act of bridging, linking or mediating between groups or persons of differing cultural systems for the purpose of reducing conflict or producing change" (p. 20). Transcultural education has been either invisible or fragmented in most nursing programs in Canada (Guruge, 1996; Srivastava & Leininger, 2002), with limited investigation into evaluation of cultural learning (Barton & Brown, 1992; Kulig & Thorpe, 1996; Pope-Davis, Eliason, & Ottavi, 1994).

A literature review of culture, transcultural education, the integration of theory into practice, and the evaluation of cultural learning resulted in unanswered questions. What are the processes in which culture is integrated into practice, and is culture brokering one of these processes? What are the influences on teaching and learning that culminate in a culturally competent nurse? Are there steps to becoming culturally competent, or degrees of competence exhibited by nurses? Are these influences similar or different for multicultural nurses in a multicultural environment? Through collaboration with a northern nursing program, the first author sought answers to these questions using a participatory evaluation approach.

Methodology

Fourth-generation evaluation (Guba & Lincoln, 1989) was chosen as the method for evaluating the cultural component of a northern nursing

program because it is an interactive, dialectic approach that engages all stakeholders in reaching a consensus regarding the "evaluand" — in this case, cultural care. Using a circling process, the researcher (a) explores the different views of the stakeholders, (b) summarizes the different constructions for each stakeholder group, and (c) develops a consensus on the emergent construction through several negotiations, first at an individual group level and then in a group that includes representatives from all stakeholder groups.

In this study, the three stakeholder groups were faculty members (both full-time and part-time instructors), nurses who had graduated in the previous 2 to 3 years, and northern residents who had recently received nursing care. Of the 16 participants in the three stakeholder groups, four were Dene, four were Inuit, two were Metis, one was Filipino, and five were Caucasian. Recruitment took three forms. Faculty members voluntarily completed a participation form after attending a meeting at which the first author described the research project and the process. Graduates of the program were sent a letter describing the study with a form to submit if they wished to participate; as forms were received they were numbered and the first five became the graduate stakeholder group. Clients were recruited from a family practice clinic; two of the five people who submitted forms were unable to participate for personal reasons, so two more participants were acquired through a snowballing technique. All participants who agreed to be part of the research signed an informed consent form.

Initial questions were established for each group of stakeholders, with more structured questions following as the constructions emerged. Clients were asked: If someone asked you about your culture, what would you tell them? What sort of questions should I ask to learn about someone's culture? How does a nurse show consideration for your culture while caring for you? Faculty members were asked: How would you define culture? What processes within the curriculum address culture? What do you do to help students develop culturally appropriate behaviours? Graduates were asked: What does culture mean to you? Describe how you incorporate culture into your nursing care. Tell me about some experiences with clients which took into account specific cultural care.

In each stakeholder group, each member participated in an audio-taped interview that was transcribed and analyzed line by line for central themes before the next member was interviewed. In this way the researcher was able to not only gain the next participant's perspective but also get his/her feedback on the emerging construction.

Key claims, concerns, and issues regarding cultural care were gradually identified through constant comparison among themes in the interviews, and these became the focus of the stakeholder group meetings where differences were negotiated. After several meetings, agreement was finally reached among all stakeholder groups.

Findings

Two models were generated from the circling process and layers of constructions. The first model, the integration of culture (Figure 1), addressed the research question *In what ways do graduates integrate culture into nursing practice?* The second model, northern knowledge and nursing (Figure 2), addressed the question *What is and is not effective in facilitating the learning of culturally appropriate care?* Figures 1 and 2

Figure 1 *Integration of Culture*

Interactive
- Engage in cultural talk
- Live with the people
- Learn specific practices

Care

Reflective
- Respond in a new way
- Relate the cultural practice to self & others

Receptive
- Be Open
- Be Accepting
- Be Respectful

Inquisitive
- Desire to Learn
- Observe
- Listen
- Question
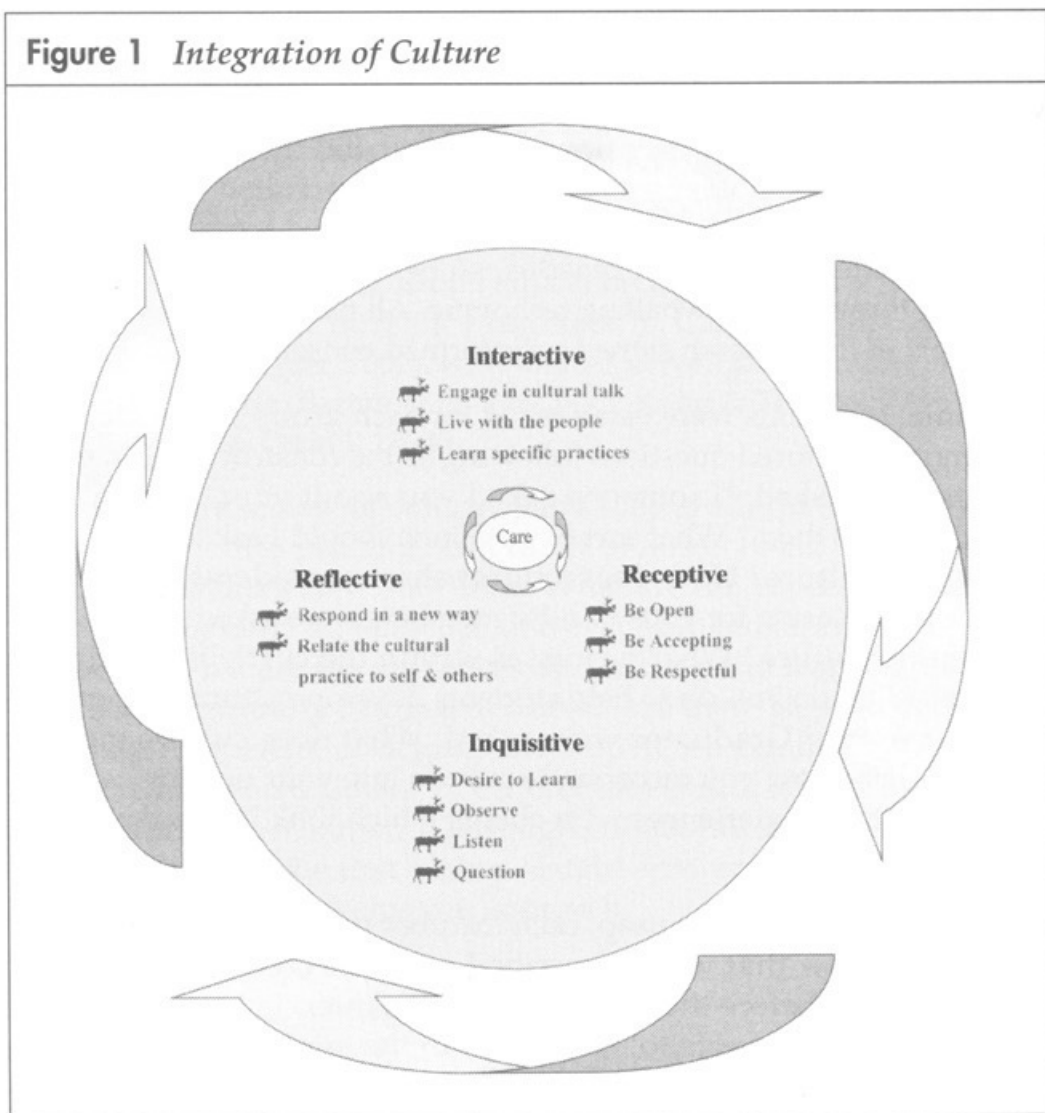
Figure 2 *Northern Knowledge and Nursing*

Traditional Knowledge
- Elders teachings
- Healing Circles
- Language
- Aboriginal Medicine
- Land Experiences

Scientific Knowledge
- Caring
- Nursing
- Learning

Integration of Wisdom & Knowledge

Individual & Community Values
- Different Healing Methods
- Good and Bad Medicine
- Role of Interpreters
- Consensus
- Self-Government
- Worldview

Nursing Curriculum
- Make Connections
- Validate Experiences
- Role Model & Mentor
- Kleinman's Explanatory Model
- Relevant Case Studies/Scenarios

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were derived from the claims, concerns, and issues identified in the data and validated by the participants. The figures went through a process of reconfiguration at the group meetings, with final validation coming from representatives of all three stakeholder groups.

The Process of Integrating Culture

The integration of culture was viewed by the participants as the integration of difference. It was depicted as a circle because of the signifi-

cance of the circle to the participants and as a principle integral to aboriginal people (Bopp, Bopp, Brown, & Lane, 1988; Hart, 1996; King-Hooper, 1991; Riddington, 1988). The circle suggests harmony and balance in native education, with each learner being equal and interdependent — a part of the whole in terms of life and the entire universe (Hanohano, 1999). The drum, too, is framed within a circle, and hence the spirit of the drum is captured in the integration of culture. Drummaking has been used for several years in the Northern Nursing Program as a way of teaching indigenous culture. As well as providing instruction in the creation of the drum, the elder teaches new songs, which, once played, will always be in the drum; in the same way, new cultural information is accumulated, learned, and then applied in nursing practice.

There are four *ways of being* within the process of the integration of culture. These were identified and validated by the participants as *inquisitive, receptive, interactive,* and *reflective*. These *ways of being* are situated in the four directions of the circle. The directions depict the opposing forces that are present when difference is experienced. Within each *way of being* are strategies that, when employed, increase the extent to which the direction will move the individual towards integration. The model thus illuminates descriptive nursing behaviours that will foster culturally appropriate practice.

Inquisitive way of being. The desire to learn, the desire to observe, the desire to listen, and the desire to question are four elements shaping the inquisitive way of being. The desire to learn is manifested through attentiveness. By observing, listening, and questioning, the nurse comes to culturally know the client, and by determining the client's "situatedness" the nurse can accommodate that person. For example, if the semantics of the local dialect are not considered and thoroughly explored, cultural conflict can result, as illustrated in the practice of one participant when she was studying the Dogrib language:

> *I said to the Dogrib teacher, "Okay, I want a glass of orange juice. What word would you use?" She said, "You know that." And I said, "No, I don't…I know orange, jeik'o. I know orange, but I don't know juice." She said, "ti." And I said, "jeik'o ti…no, that is orange water." She said, "That is orange juice." And I said, "Oh, hold it, if I ask for orange crush…jeik'o ti…if I ask for orange juice…jeik'o ti." And I said, "We are doing nutrition counselling through an interpreter and we are wondering why there is orange crush in a baby's bottle."*

Receptive way of being. The receptive way of being is one of openness, acceptance, and respectfulness. An aboriginal woman explained the significance of "smudging" to becoming open in her culture:

> *You clean your eyes so that you can see with the eyes of a baby. You clean your ears so that you can hear what is really being said. You clean your mouth so that the words that come out are words of understanding. And you clean your heart so that you can care.*

In this way, you are being receptive. Other participants described it as being "being present," "being unassuming," and "not sitting in judgement." Through acceptance, a rapport is developed. Respect is a salient element in the receptive way of being. Participants in the study used "smile at me," "welcome me," "shake my hand," and "don't laugh at me" as expressions of respect and openness to understanding the culture.

Interactive way of being. Engaging in cultural talk, living with the people, and learning specific practices are elements moulding the interactive way of being. When people engage in cultural talk, there must be a sharing of information until understanding is reached; the message must hold the same meaning for each person involved in the interaction. Cultural talk is relevant for exploring the values, beliefs, and practices that are significant to the individual. Living with northern people and experiencing their way of life "actualizes" this process. One participant shared a story about a client with whom she was working:

> *One of her requests was [that] if a female was menstruating, she wasn't allowed to give her care or enter the room and there was a sign on the door that said that. She didn't last very long. She passed away within a couple of months. But that made her feel better…she felt better after seeing the medicine woman and taking that advice, and a lot of us on the floor were sensitive to that — mind you, there were some that thought it was a whole lot of hocus-pocus.*

Reflective way of being. The nurse and the client reflect on the cultural knowledge that emerges through the nurse-client relationship by relating it to their existing personal and practice knowledge, to the present situation or context, and back to the self. By reflecting on the cultural encounter, the nurse and client consider the similarities and differences when relating the new knowledge to their personal knowledge. By virtue of acknowledging the disparity, they are able to consider the meaning of the differences and resolve any conflict that may have resulted. One participant described it this way:

> *I went to do a Denver in the Inuit culture and we were doing the opposite of high and the clerk interpreter said, "I can't ask that." So I said, "Is there such a word?" She said, "Yes." "And is there such a word for low?" And she said, "Yes, but they are not opposite… High exists. Low exists. Who says they are opposite?" Our language says they are opposite. Our ways of categorizing cultural constructs say they are opposite.*

The Northern Knowledge Model

Northern knowledge is described in the corporate plan of Northern College as comprising traditional knowledge, scientific knowledge, and individual and community values. The participants in the present study adopted this model during the process of reaching consensus on how nurses learn culturally competent care (see Figure 2). The model identifies content areas for the curriculum and relevant teaching and learning principles for the nursing program.

Traditional knowledge, in the context of the present study, is the recognized accumulated wisdom of the aboriginal people of the Northwest Territories. The inclusion of traditional knowledge, along with Western scientific knowledge, in the epistemology of northern nursing allows for a valuing of both student and client populations. Some of the strategies identified in this study are teaching and mentoring by elders, learning on the land, using sharing circles, teaching and incorporating traditional medicine and spirituality into learning, and acknowledging and responding to the different languages of the people.

Individual and community values are salient to the health and healing of specific groups. The participants in this study believed that learning about the worldview of others is essential to becoming aware of difference and developing a greater sense of awareness in general. We need to become cognizant of who we are by examining our personal belief systems and identifying our cultural biases in order to comprehend and respond to the realities of our clients. To be effective cultural caregivers in the Northwest Territories, we need to be sociopolitically, historically, and culturally astute. To do so we must incorporate knowledge of different healing methods, good and bad medicine, the role of interpreters, and self-government and consensus practices into our nursing practice.

Summary and Implications

In summary, implications for the enhancement of the cultural component of the nursing program were discovered and are presented in the Northern Knowledge Model, which identifies elements of traditional knowledge, individual and community values, scientific knowledge, and culturally appropriate ways to facilitate teaching and learning in a multicultural setting. The implications for education are the inclusion of difference and traditional knowledge in the multicultural classroom and practice settings through open dialogue, sharing circles, cultural

conflict resolution, and the development of relationships based on the integration of the cultural model. In practice, an emphasis should be placed on relationship development that sees each client as unique and different, requiring care that is based on difference rather than sameness. Caring relationships based on respect are central to a multicultural environment.

Future research areas prompted by this study include (a) the exploration of nursing relationships using the integration of difference model, and (2) the exploration of teachers' role-modelling of cultural caring and its effect on the integration of culture. The Northern Knowledge Model constructed in this study could be used to guide the curriculum, followed by re-evaluation in order to assess its effectiveness in instilling culturally appropriate student behaviours.

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Authors' Note

A Comparison of Adolescent and Adult Mothers' Satisfaction With Their Postpartum Nursing Care

Wendy E. Peterson and Alba DiCenso

On a cherché à déterminer, dans cette étude de cohortes en paires appariées, s'il existait une différence entre les mères adolescentes non mariées et les mères adultes mariées relativement au taux de satisfaction à l'égard des soins infirmiers postnatals. Quatre-vingts paires de mères adolescentes et de mères adultes séjournant dans un hôpital d'enseignement de taille moyenne ont été appariées en fonction de la parité, du type d'accouchement, de l'état de santé de l'enfant et de la méthode d'allaitement. Les adolescentes ont attribué un score plus bas que les adultes, tant sur l'échelle *Experiences of Nursing Scale* que sur l'échelle *Satisfaction with Nursing* des *Newscastle Satisfaction with Nursing Scales*. Chez les adolescentes, les mères césarisées se sont dites moins satisfaites que les mères qui avaient accouché par la voie vaginale. L'insatisfaction des mères adolescentes à l'égard de la disponibilité des infirmières et de la communication infirmière-cliente est l'une des explications possibles. Les études qualitatives à venir orienteront la mise au point d'interventions destinées à améliorer le taux de satisfaction chez les mères adolescentes.

Mots-clés : mères adolescentes, taux de satisfaction, soins postnatals, soins infirmiers

The purpose of this matched-cohort survey was to determine whether there is a difference between unmarried adolescent mothers and married adult mothers in terms of satisfaction with inpatient postpartum nursing care. Eighty adolescent/adult postpartum mother pairs from a mid-sized teaching hospital were matched according to parity, mode of delivery, infant health status, and infant feeding method. Adolescents scored lower than adults on both the Experiences of Nursing Care Scale and the Satisfaction with Nursing Care Scale of the Newcastle Satisfaction with Nursing Scales. Among the adolescents, post-caesarean mothers were less satisfied than mothers who had delivered vaginally. Adolescent mothers' dissatisfaction with nurse availability and nurse-client communication are possible explanatory factors. Future qualitative studies will inform the design of interventions to improve satisfaction among adolescent mothers.

Keywords: postpartum, nursing care, health services, immigrant, women

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Literature Review

Recent Canadian statistics indicate that over 17,000 infants are born to adolescent mothers annually (Statistics Canada, 2002). This is a concern because young mothers and their children are at high risk of poor physical, psychosocial, and economic outcomes. For example, when compared with older mothers, adolescent mothers are more likely to deliver low-birthweight infants and to be unmarried, and less likely to be educated and responsive parents (Fraser, Brockert, & Ward, 1995; Parks & Arndt, 1990; Wadhera & Millar, 1997). Their children are more likely to be formula fed, to be hospitalized during the first year, and to have educational disabilities by age 5 (Gueorguieva et al., 2001; Nolan & Goel, 1995; Strobino, Ensminger, Nanda, & Kim, 1992).

Adequate pre- and postnatal care, prenatal classes, and other, more comprehensive, programs are effective in reducing many of the negative outcomes associated with adolescent motherhood (O'Sullivan & Jacobsen, 1992; Timberlake, Fox, Baisch, & Goldberg, 1987). However, adolescent mothers' under-use of these services is well documented (O'Sullivan & Jacobsen; Scholl, Hediger, & Belsky, 1994).

Studies with outpatient adolescents have shown that those who are satisfied with the care they receive are more likely to engage in better self-care and to return for follow-up (Kyngas, Hentinen, & Barlow, 1998; Litt & Cuskey, 1984). Evidence suggests that the health behaviour of obstetrical patients may also be influenced by their satisfaction with care. For example, mothers with inadequate prenatal care are more likely to report poor past health-care experiences and dissatisfaction with health-care providers (Lia-Hoagberg et al., 1990). Conversely, maternal satisfaction with the inpatient breastfeeding experience is an important factor in breastfeeding success (Kuan et al., 1999).

Given the relationship between satisfaction with care and health-care utilization among outpatient adolescents, and given the influence of satisfaction on the health behaviours of obstetrical patients, adolescent mothers' satisfaction with their care is important. This study was designed to measure adolescent mothers' degree of satisfaction, relative to that of adult mothers, with their inpatient postpartum nursing care.

We chose to measure maternal satisfaction with inpatient postpartum nursing care because the inpatient setting allowed us to compare satisfaction among adolescents to that among adults with similar nursing-care needs and resources. Furthermore, the postpartum hospital stay represents an opportunity for nurses to provide highly satisfactory care to virtually all adolescent mothers, including those who have

not received adequate prenatal care. If adolescent mothers are found to be more dissatisfied than adult mothers, consideration can be given to the design and evaluation of interventions to improve satisfaction and, ultimately, health-care utilization and health outcomes.

Methods

Design

The nursing-care needs of postpartum mothers depend on many factors, including birth outcomes and infant feeding choices. Therefore, we used a matched-cohort survey to ensure that the adolescent and adult groups had similar nursing-care needs. Each adolescent was matched with an adult according to parity (primipara/multipara), mode of delivery (vaginal/caesarean), current infant health status (rooming-in/neonatal unit), and feeding method (breastmilk/formula). Mothers who supplemented breastmilk with formula were considered breastfeeders because they were receiving nursing care related to breastfeeding.

Sample

The sample was recruited from a 34-bed postpartum unit in a 400-bed teaching hospital located in a mid-sized multi-ethnic city in Ontario, Canada. The hospital is a publicly funded Catholic institution in which approximately 4,000 babies are delivered annually. The postpartum unit is staffed with a mix of registered nurses and registered practical nurses.

To be included in the study, the adolescent mothers had to be (a) no more than 19 years old, and (b) unmarried, and the adult mothers had to be (a) at least 20 years old, and (b) married. The marital-status criterion was included to reflect the norm for each maternal age group. This distinction is important because nurses have been found to potentially treat mothers differently based on marital status (Ganong & Coleman, 1997). For this reason, we grouped together the less conventional marital situations (unmarried and common-law). The common-law status was assigned if the mother described her marital status as common-law, as opposed to using the legal definition.

For both groups, mothers were excluded from the study if they (a) were not English-speaking, (b) had spent less than 24 hours in the postpartum unit, or (c) were in isolation, or if their infant was (d) still-born, (e) born with anomalies, (f) being placed for adoption, or (g) being investigated by the Children's Aid Society prior to discharge.

The sample size was based on previous use of the patient satisfaction instrument. A difference of at least five points (on a scale of 0–100) between adolescent and adult mothers in mean scores on the Experiences of Nursing Care Scale of the Newcastle Satisfaction with Nursing Scales (NSNS) would indicate a clinically important difference in perceptions of nursing care. The sample size necessary to detect this degree of difference with 80% power is 80 patients per group (Thomas, McColl, Priest, Bond, & Boys, 1996).

Measures

The NSNS is a questionnaire designed to measure patient satisfaction with nursing care during one hospital stay. It addresses nurses' attentiveness, availability, reassurance, openness, professionalism, and knowledge, as well as individual treatment received, information provided, and ward organization and environment. Psychometric testing indicates that the NSNS has good construct validity and test-retest reliability and is capable of detecting differences between groups of patients (Thomas et al., 1996).

The NSNS consists of two scales, a patient demographics section, and two open-ended questions. The Experiences of Nursing Care Scale consists of 26 items that describe aspects of nursing care. Respondents use a seven-point Likert scale to indicate the degree to which each item describes their experience. The Satisfaction with Nursing Care Scale consists of 19 items that describe aspects of nursing care. Respondents use a five-point Likert scale to indicate their degree of satisfaction with each identified aspect of nursing care. Item responses are re-coded and summed, resulting in an Experience Scale score and a Satisfaction Scale score. Scores of 100 indicate that the patient experienced the best possible care (Experience Scale) and is 100% satisfied with the care they received (Satisfaction Scale) (Thomas et al., 1996).

Data Collection

Ethical approval was obtained from the hospital's Research Ethics Board. Notices were posted in each postpartum room stating that mothers could be asked to participate in a survey of patient satisfaction. To maximize the response rate among adolescent mothers, the questionnaires were administered prior to hospital discharge.

Training of interviewers (two) included role-playing and rehearsal of a standard script to introduce the study, give instructions, and respond to requests for clarification. The instructions emphasized that

we were interested in both negative and positive experiences and that patients' individual responses would not be shared with the nursing staff. Patients were not dependent on the interviewers in any way for their care. The NSNS was pilot tested with five adolescent and five adult mothers and minor changes to wording were made.

The interviewer introduced the mothers to the study and obtained their written consent. The interview, which took less than 20 minutes to complete, was conducted as close to the mother's day of discharge as possible. An effort was made to use a private room so that mothers would feel comfortable providing honest opinions about their nursing care. Nurses were not in the same room at any point during any of the interviews.

Once an adolescent mother had consented to participate, all married adult postpartum inpatients were identified from the patient census in an effort to find a match. If more than one adult mother was eligible, a mother was randomly selected. If there were no eligible adult mothers, one was selected as soon as possible after the adolescent's interview. The same method of data collection was followed for adult mothers.

Data Analysis

Descriptive baseline data were compared using independent t tests (two-tailed) for continuous data and chi-squared or Fisher's exact test (two-tailed) for nominal data. Independent t tests were used to determine whether the Experience and Satisfaction scores differed between the adolescent and adult groups. Although our score distributions for both scales were slightly negatively skewed, the sample size was sufficient ($n = 80$/group) to support the use of parametric tests (Norman & Streiner, 2000).

A linear regression model was used to determine whether baseline variables that differed between groups explained the difference in satisfaction scores. The variables entered into this model were: involvement of an obstetrician, attendance at pre-registration visit, attendance at hospital tour, and patient perception of maternal and infant health. Finally, based on the adolescent-mother data only and a cutoff score of 70 (< 70 indicating dissatisfaction and ≥ 70 indicating satisfaction), logistic regression was used to determine whether specific variables explained the difference in adolescents' satisfaction scores. The variables entered in this model were: mode of delivery, education, involvement of an obstetrician, attendance at the pre-registration visit, attendance at the hospital tour, parity, and method of infant feeding.

Table 1 *Baseline Characteristics of Adolescent and Adult Mothers*

Variables	Adolescents n = 80	Adults n = 80	p value
Age (years) mean (SD)	17.4 (1.3) range: 15–19	29.0 (3.8) range: 22–39	
Education			
≤ High school	76 (95%)	17 (21%)	< 0.0001
> High school	4 (5%)	63 (79%)	
≥ 1 Prenatal care visit	78 (98%)	80 (100%)	= 0.25
Prenatal care provider*			
Obstetrician	60 (75%)	72 (90%)	= 0.01
Family physician	53 (66%)	54 (68%)	= 0.87
Midwife	3 (4%)	2 (3%)	= 0.32
Attendance at ≥ 1 prenatal class	41 (51%)	49 (61%)	= 0.20
Hospital pre-registration visit	55 (69%)	76 (95%)	< 0.0001
Hospital tour	42 (53%)	65 (81%)	< 0.0001

* Totals will be greater than 100% because some women saw two types of prenatal care provider.

Table 2 *Comparison of NSNS Scores*

Scale	Adolescents Mean (SD) n = 80	Adults Mean (SD) n = 80	Difference and 95% CI Around Difference	p value
Experience Scale*	73.4 (15.6)	79.2 (12.9)	-5.8 (-10.3, -1.4)	0.01
Satisfaction Scale*	71.2 (20.6)	77.5 (18.0)	-6.3 (-12.3, -0.2)	0.04

* Range = 0–100 (with 0 signifying a poor score and 100 an excellent score).

Results

Sample

Recruitment was ongoing until 80 matched pairs were identified. In total, 198 mothers were invited to participate. Four adolescent and five adult mothers declined because they had visitors or were feeling unwell or tired. A total of 189 mothers agreed to participate, resulting in a 95% response rate.

Of the 189 questionnaires, 29 were excluded from the final analysis because there was no match ($n = 17$), the matched adolescent and adult

were interviewed more than 2 months apart ($n = 8$), or there had been an error in eligibility ($n = 4$).

The mean number of days between the adolescent and matched adult interviews was 13.4 days (*range* = 0–62 days). Fifty-one percent of the pairs were interviewed within 7 days of each other. In six cases, the adult mother was interviewed prior to the adolescent mother. The majority (88%) of mothers were interviewed in a private room.

Comparison of Baseline Data

Baseline data for the two groups of mothers are shown in Table 1. The majority of pairs were primiparas (90%) who had delivered vaginally (86%) and were breastfeeding (78%) their healthy newborn infant (95%). A minority of the breastfeeding mothers were supplementing their breastmilk with formula (11% of adolescents; 8% of adults). Fifteen adolescents (19%) described themselves as being in a common-law relationship.

Predictably, the adolescent mothers had significantly less education than the adult mothers ($p < 0.0001$). Adolescents were also less likely to have seen an obstetrician ($p = 0.01$) or to have attended the hospital pre-registration visit ($p < 0.0001$) or the tour ($p < 0.0001$).

At the time of the survey, the adolescent and adult groups had spent a similar number of hours on the unit (52.1 and 51.9; $p = 0.97$). However, the adolescents rated their own health ($p = 0.03$) and their infant's health ($p = 0.01$) higher than the adults.

Comparison of Scale Scores

Table 2 presents a comparison of scores for the two groups of mothers. Adolescent mothers scored lower than adult mothers on both the Experience Scale and the Satisfaction Scale. The linear regression ($n = 160$) indicated that baseline differences between groups (involvement of an obstetrician, attendance at the pre-registration visit or the hospital tour, patient perception of maternal or infant health) did not explain the difference in satisfaction scores.

Predicting Dissatisfaction Among Adolescent Mothers

Mode of delivery was the one variable found to be significantly associated with dissatisfaction. Adolescent mothers who had delivered by caesarean were more likely than those who had delivered vaginally to

be dissatisfied with inpatient postpartum nursing care (Experience Scale: 59.9 vs. 75.5; $p = 0.03$; 95% CI around difference of -15.6: -29.0, -2.2; Satisfaction Scale: 56.6 vs. 73.5, $p = 0.05$; 95% CI around difference of -16.9: -33.5, -0.4).

Discussion

Our results provide evidence that unmarried adolescent mothers are less satisfied with their inpatient postpartum nursing care than married adult mothers. The matched design contributes to the strength of this finding, in that we can be reasonably assured that adolescent/adult mother pairs required similar nursing care. However, the matched design also caused some delays in the recruitment of mother pairs. Nevertheless, given that the mean time between paired interviews was less than 2 weeks, it is unlikely that differences in scores were due to changes in unit policy or practices.

Our use of the NSNS overcomes two common limitations of satisfaction surveys. First, items for the instrument were generated by asking patients, rather than health-care providers or researchers, to identify important aspects of care. Second, the psychometric properties of the instrument have been established (Thomas et al., 1996). A limitation of using the NSNS is that it was developed and originally tested with medical-surgical patients, who are likely to be older and less healthy than postpartum patients. However, recent psychometric testing indicates that the NSNS is a valid instrument for measuring satisfaction among postpartum inpatients (Peterson & DiCenso, 2001).

Our findings are consistent with evidence from two less conclusive studies. In a sub-analysis of their data, Sullivan and Beeman (1981) found that mothers from low socio-economic backgrounds, teenagers, and multiparas were less satisfied with postpartum care than other mothers. More recently, Lena et al. (1993) found that 59% of adolescents felt uncomfortable sharing a postpartum room with older women, and 33% did not receive information regarding contraception, compared with 11% of adults.

Although we should be cautious about drawing conclusions from the analysis of individual item scores, the data allow us to hypothesize which aspects of postpartum nursing care are most unsatisfactory from the point of view of adolescent mothers. The scale items that were most often scored negatively by the adolescent mothers were those addressing the availability of nurses. Adolescent mothers' responses to an open-ended question supported this finding, with descriptions of

waiting for long periods after calling for assistance and comments that nurses should check on mothers more frequently. Also, many of the instances of unsatisfactory care described by the adolescents can be attributed to poor communication between adolescent mothers and nurses (e.g., lack of understanding regarding the infant's health or the rationale for taking the infant to the nursery).

Among the adolescent mothers, those who had had a caesarean section were the most dissatisfied with their nursing care. Perhaps dissatisfaction with nurse availability and nurse-client communication is intensified when mothers are recovering from a surgical delivery. Postoperative pain and immobility are possible explanatory variables.

The purpose of this study was limited to determining whether adolescent and adult mothers differ in terms of their satisfaction with nursing care. Future research should address the underlying reasons for the disparity in satisfaction. Is the difference in perception of care attributable to differences in patient characteristics (e.g., education, socio-economic status, social support, marital status, expectations), or is it attributable to differences in the manner in which nurses provide care, based on those characteristics?

Conclusions and Nursing Implications

We found that unmarried adolescent mothers are less satisfied with inpatient postpartum nursing care than married adult mothers. Furthermore, we found that post-caesarean adolescent mothers are a sub-group at particularly high risk of being dissatisfied. Further research is required in order to explore the sources of dissatisfaction among adolescent mothers. However, we hypothesize that the low availability of nurses and inadequate communication between nurses and adolescent mothers are important factors.

Implications for postpartum nursing practice include the need for increased sensitivity to the special needs of newly delivered adolescent mothers. Improvements could be made in the frequency of rounds to check on young mothers, in the quality of communications skills among nurses, and in the consistency of nursing assignments. Nurse managers should be alerted to the potential need for increased staffing when adolescent mothers are admitted, to allow nurses time to provide satisfactory care.

We are currently conducting a phenomenological study to further explore the quality of postpartum nursing care from the perspective of adolescent mothers. Future qualitative inquiry into adolescent mothers'

satisfaction with care by other health-care providers, and how their satisfaction changes over time, will also inform the design of interventions to improve health-care satisfaction among adolescent mothers.

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Authors' Note

Designer's Corner

Multidisciplinarity in Nursing Research: A Challenge for Today's Doctoral Student

Janet Bryanton, Susan Gillam, and Erna Snelgrove-Clarke

Doctorally prepared nurses entering today's research environment must be adept at transcending the research chasm that exists across disciplines and within nursing and be prepared to play leadership roles in multidisciplinary and nursing research. In order to fulfil these roles and meet the need for well-educated nurse scientists, doctoral students must be exposed to research from a multidisciplinary perspective and be able to think across disciplines so as to become familiar with the differences in design language. This paper compares research terminology across the disciplines of epidemiology, psychology, and nursing based on a sample of four research textbooks. It is apparent that although similarities exist, there is also diversity in the language used in research. Doctoral students preparing for comprehensive examinations must avoid becoming caught up in semantics and instead focus on the broad issues with each of the designs. With that knowledge, students will be not only more successful in their examinations but also more effective as leaders in nursing and multidisciplinary research.

Introduction

Romanow (2002), in his recent review of the Canadian health-care system, calls for the provision of better information to health-care

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providers, researchers, and health policy-makers to guide their decision-making. To assist with the generation of this comprehensive and integrated knowledge base, "contemporary research...needs to consider the value of a multidisciplinary approach in answering critical health questions" (Mazure, Espeland, Douglas, Champion, & Killien, 2000, p. 717). Nurses are increasingly being recognized as valuable contributors to multidisciplinary research and "play a part in unravelling the emerging complexities of our understanding of health" (Hayes, 1996, p. 259). Nurses are exposed to research from other disciplines on various occasions, ranging from directly facilitating psychological or medical studies to assessing studies as members of ethical review boards. Nurses must be prepared to understand and assess these proposals, while valuing and understanding the differences and similarities that exist across the disciplines.

Even within nursing, nurses are involved in research across a broad spectrum of issues and must be armed with a transdisciplinary knowledge of research so that when a worthwhile research question is posed the most appropriate method is used to address it. Just as nursing has borrowed theories from other disciplines, so too nurses use research methodology that predominates in other disciplines. As well, nurses are increasingly publishing across a number of disciplines and utilizing evidence from multidisciplinary literature.

Doctorally prepared nurses entering today's research environment must be adept at transcending the research chasm that exists across disciplines and within nursing. Doctoral students must learn about and value research from different perspectives in order to advance patient care and the nursing/multidisciplinary research agenda. This paper explores the challenges this presents to doctoral students in preparing for their candidacy examinations and their future role as nurse scientists.

Examination Preparation

Preparation for candidacy examinations begins with the first course taken and continues throughout the intense pre-examination period. Today's doctoral students are wise to expose themselves to disciplines such as epidemiology, psychology, sociology, and statistics during their course work. This provides a strong knowledge base upon which to draw during the examination process, during dissertation work, and upon graduation. It can be argued that the design issue is purely one of semantics. However, identifying and using the correct design is key to addressing the research question clearly. Learning to understand the

differences in design language across disciplines is a challenge and can be stressful to students as they attempt to consolidate a vast expanse of knowledge.

Comparison of Designs and Biases

To examine similarities and differences in terminology across disciplines, a sample of four research textbooks were reviewed: one from medicine/epidemiology (Rothman & Greenland, 1998), one psychology classic (Campbell & Stanley, 1963), and two from nursing (Brink & Wood, 1998; Burns & Grove, 1997). Table 1 provides a comparison of design language and Table 2 a comparison of bias terminology across these sources. It is beyond the scope of this paper to define each of the designs and biases. The reader is encouraged to refer to the original sources for a detailed discussion of each.

Design Language

At first glance, a doctoral student preparing for comprehensive examinations might easily get lost in terminology and be unable to determine which source to use as the standard. Rather than attempting to distinguish right from wrong or getting lost in semantics, students would do well to put their energy into consolidating their understanding of the broader classifications of designs, the unique features of each design across the disciplines and within nursing, and how the choice of design will affect bias reduction and analytic strategies.

The most striking feature of Table 1 is that while there are certainly similarities in design terminology, there are numerous differences even within nursing. One could suggest that if 10 more texts were added to the table, the variation in terminology would be even more apparent. With respect to the broad research method, all sources include quantitative designs, while Rothman and Greenland (1998) and Campbell and Stanley (1963) do not mention qualitative research. This may be due to the predominance of the positivist/post-positivist paradigm in medicine and psychology, in particular with respect to Campbell and Stanley, who were writing at a time when the constructivist paradigm and qualitative research were not well recognized or accepted.

In relation to quantitative methodology, experimental design crosses all disciplines and is labelled as such. This is the only term that is consistent across the disciplines. Rothman and Greenland (1998) differ most notably in the types of experimental designs they present, which include clinical trials, field trials, and community intervention

Table 1 *Comparison of Selected Research Design Language*

Research Method	Medicine/Epidemiology: Rothman & Greenland 1998	Psychology: Campbell & Stanley, 1963	Nursing: Brink & Wood, 1998	Nursing: Burns & Grove, 1997
Quantitative				
Experimental	Clinical trials Field trials Community intervention and cluster randomized trials	Pre-test post-test Control group Solomon four group Post-test-only control group Factorial	Pre-test post-test Post-test only Factorial Repeated measures Solomon four group	Pre-test post-test control group Post-test-only control group Randomized block Factorial Nested Crossover Randomized control trial
Quasi-experimental	Not addressed	Non-equivalent control group Separate sample pre-test post-test Time series Multiple time series Recurrent institutional, etc.	Non-equivalent control group Removed treatment pre-test post-test Cohort cyclical Interrupted time series Patched up, etc.	Non-equivalent control group Untreated control group Removed treatment pre-test post-test Reversed treatment Interrupted time series, etc.
Pre-experimental	Not addressed	One-shot case study One-group pre-test post-test Static group comparison	Not addressed	One-group post-test One-group pre-test post-test Post-test-only non-equivalent groups
Other	Non-experimental – Cohort – Case control – Cross-sectional-prevalence – Ecologic – Proportional mortality	Correlational and expost facto	Survey – Correlational – Cohort	Correlational – Descriptive – Predictive – Model testing Comparative Descriptive – Cohort
Qualitative				
	Not addressed	Not addressed	Ethnography Grounded theory Phenomenology	Ethnography Grounded theory Phenomenology Critical social theory

Table 2 *Comparison of Bias Terminology for Quantitative Designs*

Medicine/Epidemiology: Rothman & Greenland 1998	Psychology: Campbell & Stanley, 1963	Nursing: Brink & Wood, 1998	Nursing: Burns & Grove, 1997
	History Maturation Testing	History Maturation Testing	History Maturation Testing
Selection Self-selection Diagnostic	Selection	Selection	Selection

	Mortality
	Regression
	Reaction effect
		Mortality (attrition)
		Regression
		Reaction effect
		Diffusion or imitation
		  of treatments
		Compensatory equalization
		  of treatment
		Compensatory rivalry
		  by respondents
		  receiving treatments
			Mortality (attrition)
			Regression
			Reaction effect
			Diffusion or imitation
			  of treatments
			Compensatory equalization
			  of treatment
			Compensatory rivalry
			  by respondents receiving
			  treatments

Information – Differential Misclassification – Non-differential Misclassification	Instrumentation	Measurement/ Instrumentation	Instrumentation
Confounding		Confounding	

and cluster randomized trials. The nursing authors appear to have adopted Campbell and Stanley's (1963) terminology, including pre-test post-test, post-test only, Solomon four group, and factorial designs under experimental design (Brink & Wood, 1998; Burns & Grove, 1997). Burns and Grove add several others, including randomized control trial, randomized block, and crossover design. It is striking that even though there are similarities in nursing, terminology varies, as do the number of designs. What the doctoral student must focus on is that no matter what fine gradations and subtle differences exist in design language, experimental design has three important features: randomization, manipulation, and control (Brink & Wood).

Quasi-experimental designs are addressed by all sources except Rothman and Greenland (1998). It was Campbell and Stanley (1963) who provided the seminal work on these designs. Brink and Wood (1998) note that "since introduced by Campbell and Stanley (1963), quasi-experimental designs have been described as a taxonomy of strategies that compromise as minimally as possible the internal validity that is achieved by the true experiment" (p. 65). Cook and Campbell built further on this work in 1979 (as cited in Brink & Wood). Though there are subtle differences in terminology among the three sources, it is clear that nursing has very closely followed in the footsteps of these authors in quasi-experimental design language. Examples include non-equivalent control group, removed treatment pre-test post-test, and interrupted time series designs. What is essential for the doctoral student to understand is the key difference between experimental and quasi-experimental designs. If, for whatever reason, all three criteria for experimental design cannot be met, "quasi-experimentation represents a logical and useful framework to answer causal questions" (Brink & Wood, p. 65). The potential biases introduced by this design must also be taken into consideration.

Pre-experimental design is described by two sources, Campbell and Stanley (1963) and Brink and Wood (1998). It is evident that Brink and Wood use Campbell and Stanley's work, but have chosen to describe the individual designs under this category using different terminology. One more attempt to confuse the doctoral student! What must be remembered is that these designs are next in the hierarchy of designs, introducing further biases that threaten internal and external validity.

From here, the waters become muddier. Rothman and Greenland (1998) classify the next set of designs as non-experimental and include the major designs of epidemiology, the cohort and case-control designs. Campbell and Stanley (1963) do not address these two designs, while

Brink and Wood (1998) describe the cohort design under a classification of survey design and Burns and Grove (1997) mention the cohort design in passing under what they classify as the comparative descriptive design. Case-control designs are not addressed by any of the three latter sources. While epidemiology draws heavily on cohort and case-control designs in the study of disease outcomes and exposures, these are not widely recognized by the other disciplines. It is important to remember that these designs are non-experimental, as there is no manipulation or intervention, but they have the capability of providing some evidence of causation (Rothman & Greenland). They compare groups based on outcome or exposure. These designs bring with them their own set of biases and distinct language such as odds ratios, relative risk, sensitivity, and specificity. Nurses who have been educated across disciplines conduct studies using these designs, and doctoral students must be well versed in the language in order to critically appraise the literature for use in practice.

Correlational designs are described by Campbell and Stanley (1963), Brink and Wood (1998), and Burns and Grove (1997) but are not mentioned by Rothman and Greenland (1998). Burns and Grove make clear distinctions between three levels of correlational designs based on an increasing ability to determine causation, while the others do not. Campbell and Stanley describe correlational designs as a separate classification, as do Burns and Grove, while Brink and Wood describe this design under the classification of survey design along with cohort design. What is most important for the doctoral student to remember is that correlational designs are non-experimental and primarily examine relationships between variables. There is no clear agreement on the degree to which this design can predict or determine causation. These designs are valuable when variables are inherently or ethically non-manipulable or when the state of knowledge is such that there is little evidence that relationships exist between the variables of interest (Brink & Wood; Burns & Grove).

Bias Terminology

Table 2 presents a comparison of bias terminology across the four sources. In accordance with the discussion of design language, it is apparent that there are similarities and differences in the language used to describe biases. Epidemiology appears to vary the most with respect to this terminology, labelling the three overall classifications of biases as selection, information, and confounding. These are similar to the biases of instrumentation and selection noted in the other three sources,

but they also have their inherent differences based on the cohort and case-control designs. It is evident that the biases described by Campbell and Stanley (1963) have been adopted by nursing and then added to based on the work of Cook and Campbell in 1979 (as cited in Brink & Wood, 1998). Examples include history, maturation, testing, instrumentation, selection, and mortality. It is interesting to note that Brink and Wood acknowledge selection, measurement, and confounding bias in their discussion of cohort design but the discussion is brief and they use the term measurement rather than information bias. What is most important for doctoral students to understand is that each design has certain potential biases that threaten internal and external validity and, no matter how they are labelled, they must be understood so that they can be controlled for as much as possible in designing studies and assessed for in critiquing research reports.

Conclusion

This paper has outlined different research design and bias terminology used across the disciplines of epidemiology, psychology, and nursing based on a sample of four research textbooks. It is apparent that although similarities exist there is also a diversity in design language being used in research today. Nursing has borrowed most extensively from psychology but it appears that epidemiology is also making an impact in the nursing research literature. Doctoral students preparing for comprehensive examinations must avoid getting caught up in semantics and instead focus on the broader issues that exist with each of the designs. With that knowledge, students will not only be more successful in passing those dreaded exams but will also be more effective as leaders in nursing and multidisciplinary research.

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Happenings

Burgeoning Opportunities in Nursing Research

Nancy Edwards, Alba DiCenso, Lesley Degner, Linda O'Brien-Pallas, and Janice Lander

Research opportunities for nurses in Canada have never been greater. Federal government funding of health research, including nursing research, has increased substantially in recent years. The priorities of many funding agencies have shifted to include a strong emphasis on interdisciplinary collaborative teams, providing an even greater opportunity for nurses to share in the research experience. In spite of the opportunities, the number of nurses applying for Canadian Institutes of Health Research (CIHR) and Canadian Health Services Research Foundation (CHSRF) research funds as principal investigators remains low relative to other disciplines. The application success rate for nurses is also lower than the overall average. New initiatives by CIHR and CHSRF are explicitly focused on building the capacity of Canadian nurses to lead and contribute to emerging and established research agendas. These initiatives, which are the subject of this paper, may be a remedy for the low level of research funding in nursing.

In the year 2000, five nurses were awarded Nursing Chairs by CHSRF and CIHR. Co-funders for these 10-year awards include the Ontario Ministry of Health and Long-Term Care, the Alberta Heritage

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Foundation for Medical Research, and the Winnipeg Regional Health Authority.

Unique to the Nursing Chairs is a strong emphasis on mentoring the next generation of nursing and health-services researchers, the involvement of decision-maker partners in their programs of research and learning activities, and an impressive slate of learning opportunities for individuals at various stages of their research career. Dr. Linda O'Brien-Pallas at the University of Toronto is building a virtual network amongst policy-makers, multidisciplinary researchers, nurses, and students to foster capacity and expertise in nursing health human resources. Dr. Alba DiCenso, based at McMaster University, is mentoring nurses who are interested in conducting research related to the introduction and evaluation of advanced practice nursing (APN) roles and interventions. Dr. Nancy Edwards at the University of Ottawa holds a Chair in Multiple Interventions for Community Health Nursing. The focus of Dr. Lesley Degner's Chair is the development of evidence-based nursing practice in cancer care, palliative care, and cancer prevention. In Alberta, Dr. Janice Lander holds a Chair in innovative nursing interventions and knowledge transfer.

Unique learning opportunities have been designed by each of the Chairs (see Appendix 1). For example, Dr. Edwards offers a 3-month summer internship program designed for graduate nurses. This initiative helps the nurses to develop skills essential for competitive grantsmanship, examine multiple issues in the design and evaluation of intervention programs, develop strategic links with decision-makers, and explore innovative approaches to research uptake. Six nurses from four provinces participated in the first internship in 2001. The number doubled in 2002, with 13 nurses from five provinces joining the program. A distance-education option is now available for nurses from the Maritime provinces. Site visits to decision-maker partners, panel presentations by research funders, dialogue and debate sessions with invited speakers, and work-in-progress sessions are highlights of the internship. The internship includes the opportunity to take an advanced-level graduate course for credit (Multiple Interventions for Community Health). This has been an appealing option for nurses considering PhD studies. Experienced researchers provide guidance and mentorship as interns develop their own research projects and evaluation initiatives. Working alongside the Chair, postdoctoral fellows participate in the internship and have opportunities to develop leading-edge research projects with regional, provincial, and national decision-makers. Fellows hone their grantsmanship skills as they expand their networks for collaborative and interdisciplinary research.

Dr. DiCenso's Chair offers three bursaries annually to students in Canada who enter a master's or PhD program with the intent of researching an APN-related issue. These students also have access to travel funds to meet with decision-maker partners and to pilot funds for preliminary thesis-related work. They are required to complete an interdisciplinary research-methods course, courses on the philosophical basis of nursing research and the theoretical basis of nursing practice, and a course on research issues specific to the introduction and evaluation of APN roles. Their thesis topic must be determined collaboratively with a decision-maker partner and must be guided by a multidisciplinary thesis committee. Students also participate in research and policy internships and biweekly student seminars. To become skilled in summarizing research findings for their nursing colleagues in a reader-friendly manner, students write commentaries for the journal *Evidence-Based Nursing*. Dr. DiCenso's Chair provides 3 years of funding for a junior faculty member who spends this time attempting to secure external funding as a postdoctoral fellow.

Through Dr. Linda O'Brien-Pallas's Chair, health policy-makers, planners, and nurses wishing to develop expertise in the planning and management of nursing health human resources and large databases may participate in applied research apprenticeships up to 6 months in duration. Apprentices document specific learning objectives together with their employers. Upon completion of the apprenticeship, they will be familiar with nursing health human resources issues, basic research methods, and analytic techniques, and will be able to integrate this knowledge into their own work. Doctoral and post-doctoral fellows participate in a leading-edge, multidisciplinary research environment to develop advanced research skills in planning (micro- and macro-level modelling) and management of human resources. Fellows learn to manage large administrative databases and develop linkage and exchange skills with provincial and national policy and management decision-makers. Master's students participate as research assistants. A CHSRF career reorientation award scientist has studied with the Chair holder. The Chair also funds a junior faculty member. A highly successful initiative, the Dorothy M. Wylie Nursing Leadership Institute builds nursing leadership capacity by nurturing aspirant nurse leaders. Participants register as a dyad, with an established leader and a novice leader attending an intensive 5-day residential session and follow-up weekend together. Dyads develop, implement, and assess a home-based project for their sponsoring organization.

Dr. Lander's Chair offers support and mentoring for graduate students, junior researchers, and practising nurses who are interested in

applied nursing research and in learning how to transfer research knowledge. The research focus can be broad but is typically in the area of pain or pain management. Assistance is given in planning and developing careers in research. Program objectives include: building capacity in nursing research, increasing the amount of applied nursing research conducted in Canada, and building relationships with health authorities and policy-makers.

Dr. Degner's Chair in Nursing Care is focused on the development of new knowledge and transfer of existing knowledge to improve outcomes for patients with cancer and their families. A second concentration of the program is cancer prevention. Students in the Master of Nursing Program, with a focus on oncology, are linked with a decision-maker partner and take a course in evidence-based practice to ensure that their thesis project is relevant to the health-care setting. The new Joint PhD Program in Cancer Control, proposed to the University of Manitoba by the Faculty of Nursing and the Department of Community Health Sciences, will provide doctoral training for nurses who wish to become independent investigators in cancer control. Research supervision and funding support for student projects are provided by members of the Cancer Nursing Research Group, with its five investigators in the Faculty of Nursing and other investigators from a variety of disciplines. These studies are conducted out of a research laboratory at the St. Boniface Hospital Research Centre. In addition, a new national program to promote knowledge transfer by nurses in cancer agencies is being mounted with resources from the Chair.

In addition to the CHSRF/CIHR Nursing Chairs, the CHSRF/CIHR Health Services Chairs are working closely with the nursing community and offering learning opportunities of relevance to nurses. These are:

Dr. Pat Armstrong, York University. Women and Health Services: Policies and Politics

Dr. Peter Coyte, University of Toronto. Health Care Settings and Canadians: A Program of Research, Education and Linkage

Dr. Jean-Louis Denis, Université de Montréal. Transformations et Gouverne des Organizations de Santé [Transformation and Governance of Health Care Organizations]

Dr. Paula Goering, Centre for Addiction and Mental Health. Generating and Disseminating Best Practices in Mental Health and Addictions

Dr. Réjean Landry, Université Laval. Fostering the Dissemination and Uptake of Health Services Research Through the Promotion of Efficient Linkages and Exchanges Between Researchers and Decision Makers

Dr. Louise Potvin, Université de Montréal. Approches communautaires et inégalités de santé [Community Approaches to Inequities in Health Care]

Dr. Ingrid Sketris, Dalhousie University. Developing and Applying Drug Use Management Strategies and Policies for Nova Scotia's Provincial Drug Programs: A Partnership of Researchers, Health Care Professionals, Consumers and Government.

The potential for these Nursing and Health Services Chairs to make a difference will be enhanced with the addition of Regional Training Centres (funded by CHSRF), the recently announced CIHR training initiatives, and Aboriginal Capacity for Applied Developmental Research and Evaluation (ACADRE) training centres. These training centres have been funded to prepare the next generation of health researchers and to build a national culture of creativity, innovation, and transdisciplinary health research. Funding of the centres provides for the development and dissemination of educational materials, stipends for trainees, and travel of trainees and mentors to training locations. Many of the centres transcend the traditional education of students in one university, one discipline, or one department. Student learning is facilitated through exposure to relevant courses at a variety of universities using distance technology, exposure to faculty from a wide variety of disciplines such as the social sciences, and close collaboration with decision-maker partners to formulate relevant research questions to inform policy-making and health-care delivery. Several of the Nursing and Health Services Chairs are directly involved with the training centres, as shown in Appendix 2.

For those who may be contemplating graduate education or may be seeking to participate actively on research teams (either as a researcher or as a decision-maker partner), the opportunities for both financial support and quality mentoring are perhaps the best they have ever been. The substantial outlay of resources for these initiatives represents a real commitment to prepare the next generation of researchers for the health and health-care challenges that lie ahead.

Appendix 1 *Learning Opportunities and Financial Support Available Through Nursing Chairs*

Learning Opportunities	Nancy Edwards	Linda O'Brien-Pallas	Alba DiCenso	Lesley Degner	Janice Lander
Web site	http://aix1. uottawa.ca/~ nedwards	http//www.hhr. utoronto.ca			http//www. centreknowledge transfer.ca
Post-doctoral fellowships	X	X			X
Research or policy internships	Summer research internship	Applied research apprenticeship	Research and policy internships		Internship with a local or national decision-maker partner
Financial support for master's or PhD studies	Graduate research assistantships for PhD students		Bursaries for master's and PhD students	Tuition support for 1st-year master's and PhD students	Bridge support for master's and PhD students
Research fellowship	Gerontology fellowship with Sisters of Charity of Ottawa Health Services				
Junior faculty position	X	X	X	X	X (Career Reorientation Award)

Graduate research assistantships	X	X		X	X
New graduate courses	The Design of Multiple Interventions for Community Health (NSG 6115)

Population Health Interventions* (POP 8930)

Population Health Policy practicum* (POP 8940) | Health Human Resource Modelling (under development) | Research Issues Specific to the Introduction and Evaluation of APN Roles (CHS-NUR 706)

Evidence-Based Health Care (Introductory Level) (CHS-NUR 704)

Evidence-Based Health Care (Advanced Level) (CHS-NUR 705) | Evidence-Based Nursing Practice (49.708) | Courses offered through Centre for Knowledge Transfer |

* Available only for students enrolled in the Population Health PhD Program.

Appendix 2	Recently Funded CHSRF, CIHR, and ACADRE Training Centres With CHSRF/CIHR Nursing or Health Services Chairs Acting as Principal Investigators or Co-investigators	
Training Centre (Funder), Participating Universities, and Contact Information	**Goal of Centre**	**Participating CHSRF/ CIHR Nursing and Health Services Chairs**
Ontario Training Centre for Health Services and Policy Research (CHSRF/CIHR) McMaster University, University of Toronto, Lakehead University, Laurentian University, University of Ottawa, York University Vonau@mcmaster.ca	To increase capacity in health-services and policy research through transdisciplinary training of graduate students, faculty, postdoctoral fellows, and managers and staff in health and health-care organizations; to provide access to learning experiences that cut across universities, faculties, disciplines, departments, and existing graduate programs; and to include decision-maker partners in program and curriculum planning, teaching, identification of students' research questions, and provision of field placements	Alba DiCenso Peter Coyte Pat Armstrong Nancy Edwards Linda Pallas-O'Brien Paula Goering
Atlantic Regional Training Centre in Applied Health Services (CHSRF) University of New Brunswick, Memorial University of Newfoundland, Dalhousie University ARTC@UNB.ca	Master's degree and future PhD to develop a critical mass of health-services researchers who conduct applied research throughout Atlantic Canada, are trained in interdisciplinary methodologies, and can communicate research to decision-makers so that it is used in policy development	Ingrid Sketris
FERRASI (CHSRF) Université de Montréal, McGill University, Université Laval Danielle.damour@umontreal.ca	To develop knowledge in nursing-services administration through the building of research capacity; to contribute to knowledge transfer to scientific and practice communities. This will be accomplished through: interdisciplinary doctoral education in nursing administration, financial support to doctoral and master's students, and research residencies in organizations.	Linda O'Brien-Pallas

National Centre for Knowledge Transfer (CHSRF) University of Alberta, University of Manitoba, University of Saskatchewan Janice.lander@ualberta.ca Www.nursing.ualberta.ca/knowledgetransfer	To contribute to improved transfer of knowledge for the betterment of health policy and health care by: (1) training health researchers (including student researchers) in knowledge transfer, (2) educating scholars in the field of knowledge transfer in order to build capacity, (3) sponsoring the training of health-care managers and professionals in knowledge transfer and in the promotion of research-based decision-making, and (4) engaging decision-makers in the knowledge-transfer process in order to maximize the policy relevance of training and scholarship	Janice Lander Lesley Degner Réjean Landry
Community Partnerships Research: Bridging Research to Practice (CIHR) University of British Columbia, University of Victoria, Simon Fraser University, University of Calgary, University of Alberta, University of Ottawa. pchr@interchange.ubc.ca	To provide research training in an integrated transdisciplinary community partnership approach that links research to policy and practice; to develop capacity of community practitioners and university researchers to engage in community partnership research that contributes to sustained partnerships; to educate researchers, policy-makers, and community members to create evidence for best practices; to develop and disseminate curriculum material for use regionally, nationally, and internationally	Nancy Edwards

Training Centre (Funder), Participating Universities, and Contact Information	Goal of Centre	Participating CHSRF/ CIHR Nursing and Health Services Chairs
Health Care, Technology and Place (CIHR) University of Toronto, University of Calgary, Queen's University, McGill University, Université de Montréal, Glasgow University, University of Auckland p.mckeever@utoronto.ca peter.coyte@utoronto.ca	To prepare researchers at doctoral and postdoctoral levels to understand, explain, and improve health outcomes associated with geographically dispersed technologically mediated health care	Peter Coyte Linda O'Brien-Pallas
Interdisciplinary Training in Analysis and Evaluation of Health Interventions (AnÉIS) Université de Montréal (CIHR, Fonds de la recherche en santé du Quebec), Université de Montréal Nicole Leduc, Jean-Marc Brodeur, and Paul Lamarche Nicole.Leduc@umontreal.ca	To increase capacity in evaluative research and knowledge transfer, through (1) partnerships with social, biomedical, and public-health doctoral programs in order to interest doctoral and post-doctoral students from diverse disciplines in the evaluation of health interventions; (2) partnerships with research centres and practice settings, with a view to exposing students to relevant and salient research problems; (3) interdisciplinary curriculum in evaluation, knowledge transfer, and ethics	Jean-Louis Denis Louise Potvin

ACADRE (CIHR) CIET International University of Ottawa Sharmila Mhatre	To support aboriginal researchers and researchers working with aboriginal communities	Nancy Edwards
Interdisciplinary Training in Primary Health Care Research (CIHR) University of Western Ontario, Dalhousie University, McMaster University ITPHCR@uwo.ca	To improve the evidence base for primary health care by building a critical mass of skilled independent researchers through both student opportunities and faculty development; to increase the interdisciplinary focus of primary health-care research	Alba DiCenso
Note. Information about additional CHRSF, CIHR, or ACADRE training centres may be obtained from www.chsrf.ca or www.cihr.ca Other investigators from various universities are involved with each of these training centres.		

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The *CJNR* Editorial Board has modified the Journal's publication schedule so that each volume will fall within one calendar year. The Journal will continue to be published on a quarterly basis. Beginning in 2003, issue no. 1 will be published in March, followed by issues 2, 3, and 4 in June, September, and December. Due to this change, we are able to grant an extension on several expired deadlines for calls for papers.

Nursing-Care Effectiveness
September 2003 (vol. 35, no. 3)

In the context of the changes that are currently taking place in health-care systems, it is imperative that the effectiveness of nursing care be systemically studied and highlighted in research reports. Additionally, it is critical that the policy implications of such research be specifically addressed. For this issue of the Journal, we invite papers that examine nursing-care effectiveness in terms of health outcomes for individuals, families, groups, communities, or populations and from the perspective of the cost to clients and to health-care systems. We will consider manuscripts that describe research studies, present a systematic review, discuss the implications of nursing-care effectiveness research on policy, present methodological issues, or provide analysis of theoretical and/or ethical issues.

Guest Editor: Dr. Sandra M. LeFort
Submission Deadline: *extended to* **January 15, 2003**

Gerontology
December 2003 (vol. 35, no. 4)

As populations age, all disciplines and public-service sectors are beginning to address the issues of ageing from their diverse perspectives. For this issue of *CJNR*, we invite manuscripts that present research focused on enhancing the health and life of older populations through the creation and dissemination of knowledge relevant to gerontological nursing practice and the policy, health-services delivery, and practice issues germane to optimizing the health and lives of older people. We particularly welcome papers on innovative interventions and strategies for promoting health and well-being in later life.

Guest Editor: Dr. Carol L. McWilliam
Submission Deadline: April 15, 2003

Health Promotion
December 2003 (vol. 36, no. 1)

The health promotion movement has had a profound influence on both nursing's perspectives of our clients and health and the development of practice approaches. In this issue, we invite papers that focus on the processes and outcomes of health promotion as well as innovative approaches to health promotion at the individual, family, community, or organizational level. Manuscripts that extend key theoretical and/or policy issues, synthesize and critique the literature, or present research findings are welcome, including those that consider health promotion within vulnerable populations such as persons living with chronic illnesses. We are particularly interested in papers that address innovative health promotion interventions, in any population.

Guest Editor: Dr. Marilyn Ford-Gilboe
Submission Deadline: July 15, 2003

Please send manuscripts to:
The Editor, *CJNR*
McGill University School of Nursing
3506 University Street
Montreal, QC H3A 2A7 Canada
e-mail: joanna.toti@mcgill.ca

CJNR 2000–2004:
Focus Topics, Deadlines, and Publication Dates

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Primary Health Care
Submission deadline: October 15, 1999
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Philosophy / Theory
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Chronicity
Submission deadline: April 30, 2000
Publication date: December 2000

Abuse & Violence
Submission deadline: July 30, 2000
Publication date: March 2001

VOLUME 33

Economics of Nursing Care
Submission deadline: October 15, 2000
Publication date: June 2001

Home Care
Submission deadline: January 15, 2001
Publication date: September 2001

Women's Health
Submission deadline: April 15, 2001
Publication date: December 2001

Health Resources Planning
Submission deadline: July 15, 2001
Publication date: March 2002

VOLUME 34

Coping / Adaptation
Submission deadline: October 15, 2001
Publication date: June 2002

Ethics & Values
Submission deadline: January 15, 2002
Publication date: September 2002

Decision-Making
Submission deadline: January 15, 2002
Publication date: September 2002

Special Issue: Completed Student Research Projects
Submission deadline: October 1, 2002
Publication date: December 2002

VOLUME 35

Addiction & Dependence
Submission deadline: *extended to* October 15, 2002
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Culture & Gender
Submission deadline: *extended to* November 15, 2002
Publication date: June 2003

Nursing-Care Effectiveness
Submission deadline: *extended to* January 15, 2003
Publication date: September 2003

Gerontology
Submission deadline: April 15, 2003
Publication date: December 2003

VOLUME 36

Health Promotion
Submission Deadline: July 15, 2003
Publication Date: March 2004

Continuity & Transitional Care
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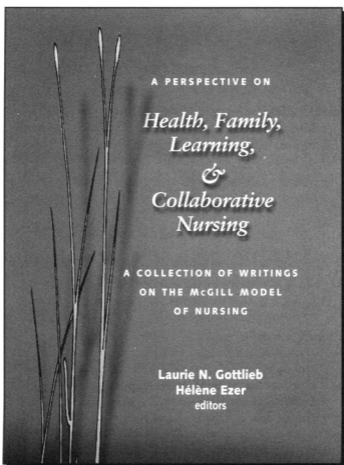
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Information for Authors

The *CJNR* is a quarterly journal. Its primary mandate is to publish nursing research that develops basic knowledge for the discipline and examines the application of the knowledge in practice. It also accepts research related to education and history and welcomes methodological, theory, and review papers that advance nursing science. Letters or commentaries about published articles are encouraged.

Procedure: 1. Articles must be written in English. 2. Authors are requested *not* to put their name in the body of the text, which will be submitted for blind review. 3. Only unpublished manuscripts are accepted. 4. All research studies must have received IRB approval. 5. A written statement assigning copyright of the manuscript to the *CJNR* must accompany all submissions to the Journal. 6. Manuscripts should be submitted by e-mail to the Editor, c/o joanna.toti@mcgill.ca

Manuscripts

Manuscripts must be prepared in accordance with the Fifth Edition of the *Publication Manual of the American Psychological Association*. Research articles must follow APA style for presentation of the literature review, research questions and hypotheses, method, and discussion. All articles must adhere to APA guidelines for references, tables, and figures. Footnotes are to be avoided.

Title page: This should include author(s) name, degrees, position, information on financial assistance, acknowledgements, address, and present affiliation. The title of the manuscript should not exceed 10 words. A suggested running head of five words or less should also be included.

Abstract: Research articles must include a summary of 100–150 words describing the purpose, design, sample, findings, and implications. Theory and review papers must include a statement of the principal issue(s), the framework for analysis, and summary of the argument. Below the abstract include four to six words that describe the substance of the article, using both specific and general terms. Please bear in mind that keywords are for indexing purposes and are a widely used means of searching. Consult MESH if you require assistance with selecting keywords.

Text: The text should not exceed 20 double-spaced typed pages, including references, tables, and figures.

References: The references are listed in alphabetical order, double-spaced, and placed immediately following the text. All author names must be included for each reference. Journal names must be spelled out in full.

Tables and figures: Tables and figures should appear only when absolutely necessary, up to a maximum of four. They must be self-explanatory and summarize relevant information without duplicating the content of the text. Each table must include a short title, omit abbreviations, and be typed on a separate page. Figures must be in camera-ready form. Tables and figures should be placed at the end of the paper, after the references.

Review process and publication information: The *CJNR* is a peer-reviewed journal. Manuscripts are submitted to two reviewers for blind review. The first author will be notified following the review process, which takes approximately 12 weeks to complete.

Electronic copy: Authors must provide satisfactory electronic files of the accepted final version of the manuscript.

Renseignements à l'intention des auteurs

La revue *CJNR* est publiée quatre fois par année. Son mandat premier est de diffuser les travaux de recherche axés sur le développement des connaissances et leur mise en pratique au sein de la discipline des sciences infirmières. La revue accepte également les articles de recherche traitant d'éducation et d'histoire, ainsi que les articles sur la méthodologie, la théorie et l'analyse critique qui contribuent à l'avancement des sciences infirmières. Les lecteurs et lectrices sont invités à faire parvenir leurs commentaires sur les articles publiés dans la revue.

Modalités : 1. Les articles doivent être rédigés en anglais. 2. Pour garantir l'anonymat des auteurs pendant l'examen des articles, on demande à ceux-ci d'éviter d'indiquer leurs noms dans le corps du texte. 3. Seuls les manuscrits inédits seront acceptés. 4. Tous les projets de recherche doivent avoir reçu l'approbation d'un comité d'éthique. 5. Une déclaration de cession du droit d'auteur à la revue *CJNR* doit accompagner toutes les propositions d'article. 6. Les manuscrits doivent être soumis par courriel à la rédactrice en chef a/s : joanna.toti@mcgill.ca.

Manuscrits

Le manuscrit doit respecter les normes précisées dans la cinquième édition du *Publication Manual of the American Psychological Association*. Tous les articles de recherche doivent répondre aux critères de l'APA relativement à l'état de la question, aux questions et aux hypothèses de recherche, à la méthode suivie et à la discussion des résultats. Les figures, tableaux, illustrations et références doivent aussi obéir aux normes prescrites. Prière d'éviter les notes de bas de page.

Page titre : La page titre du manuscrit doit donner le nom, l'adresse et l'affiliation des auteurs ou auteures, ainsi que leurs diplômes, l'aide financière reçue et les remerciements. Le titre ne doit pas dépasser 10 mots. Vous devez également suggérer un titre courant de cinq mots ou moins.

Résumé : Les articles de recherche doivent comprendre un résumé de 100 à 150 mots qui expose l'objectif, la méthode, l'échantillon, les résultats et les conclusions de l'étude. Les articles théoriques et les analyses critiques doivent présenter les principaux objectifs recherchés, le cadre d'analyse et un résumé de la discussion. Sous le résumé, décrivez en quatre à six mots la substance de l'article, en employant des termes génériques et spécifiques. Veuillez garder à l'esprit que les mots clés servent à l'indexage et sont largement utilisés pour faire des recherches. Consultez MESH pour choisir vos mots clés si nécessaire.

Texte : Le manuscrit ne doit pas dépasser 20 pages dactylographiées à double interligne, en tenant compte des tableaux, des figures et des références.

Références : Les références doivent apparaître en ordre alphabétique, à double interligne, et faire suite au texte. Chaque référence doit préciser les noms de tous les auteurs. Les titres de revues doivent être écrits au long.

Tableaux et figures : On ne doit avoir recours aux tableaux et aux figures que dans les cas où cela est absolument nécessaire, jusqu'à un maximum de quatre. Ceux-ci doivent être suffisamment explicites et résumer les données pertinentes en évitant les redites. Chaque tableau doit porter un titre, être exempt de toute abréviation et dactylographié sur une page séparée. Les figures doivent être prêtes à photographier. Les tableaux et les figures doivent être placés à la fin de l'article, à la suite des références.

Examen des manuscrits et renseignements relatifs à la publication : La revue *CJNR* est fondée sur l'évaluation par les pairs. Deux réviseurs examineront le manuscrit à partir d'une copie anonyme. On avisera le premier auteur de leur décision au terme du processus, lequel nécessite douze semaines environ.

Copie électronique : Si le manuscrit est accepté, les auteurs doivent remettre une copie électronique acceptable de la version finale du texte.

CJNR

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