EDITORIAL

Ageism of Knowledge: Outdated Research

A troubling attitude seems to be taking hold in the scientific community. It concerns how far we should go back when searching the literature. Many researchers and reviewers consider research that is more than 5 years old — or even 3 — to be outdated and irrelevant. I have noticed that more reviewers, in their comments on a manuscript, are writing "out-of-date reference list," to refer to lists that contain publications dating back further than 5 years.

Why do I and some of my colleagues find this trend disturbing? It is because the wheel of knowledge is being re-invented. Discoveries are being touted as new even though they have been in the literature for some time. To ignore anything more than 5 years old is, to my mind, to engage in a sort of ageism of knowledge — discarding the old to create an illusion of the new. Knowledge must be rooted in the work of our predecessors and be built on solid foundations. How else can it advance?

Why is ageism of knowledge happening? What is the source of this attitude and practice?

The attitude appears to be more prevalent in the health sciences than in the behavioural sciences and in the humanities. I can immediately conjure up two possible explanations for the growing phenomenon of date-limiting searches, both emanating from advances in technology.

The first relates to advances in medical technology. New medical techniques are transforming medical research and medical practice. Every day sees new discoveries in the diagnosis and treatment of disease — new diagnostic procedures, new drugs, new treatment modalities, new surgical procedures. Good medicine is predicated on the latest, most current knowledge in diagnosis and treatment. Thus it is understandable why medicine may limit some of its searches to the past 3 years.

But wait! Should the same practice be adopted by nurse scholars? Should nursing limit its reviews to the past 5 years? Does previous research have no relevance for the development of nursing science and nursing practice?

The answer to these questions lies in our understanding of the nature of nursing practice.

Nursing is similar to medicine inasmuch as it is concerned with best practices. Some of these best practices rely on new technologies. Most,

however, do not. We do need to keep abreast of the latest best practices in order to provide ethical care. This may provide *some* justification for limiting our searches to the past 5 years.

But nursing by its very nature goes beyond interventions driven by new techniques and technologies. Nursing is a relational profession that requires its practitioners to understand the human condition — the nature and variation in the ways in which individuals, families, and communities respond to illness, injury, and periods of vulnerability. It is true that individual, family, and community responses are shaped by their culture, the social and historical time in which they are born and live, and each individual's personal situation and circumstances. But there are universal and predictable responses to certain events that transcend geography and culture. Every person grieves for the loss of a loved one. All individuals experience fear when faced with a situation that they cannot understand or that threatens their sense of security. This is human nature.

Many philosophers, theologians, sociologists, psychologists, and nurses have devoted themselves to studying how people are affected by illness, death, and suffering. Should we be ignoring this body of scholarship because of the prevailing practice of ignoring anything that is older than 5 years? Must we describe anew the process of grieving and the nature of mourning, even though these areas are well described in the literature, instead of using this knowledge and building on it, discovering the various ways it manifests itself, and re-interpreting these processes in light of new contexts and circumstances? Should we be inventing a new theory of uncertainty about illness without examining Merle Mischel's empirically supported theory even though it is built on 20 years of research? In other words, knowledge about human responses is not and should not be time-bound. The practice of limiting reviews to the past 5 years has far less relevance in nursing than in medicine.

The second possible explanation for the practice of date-limiting literature searches relates to advances in information technology. It is easy to become overwhelmed by the volume of information that is readily available and accessible. Improved search engines have made the tedious process of sifting through reams of literature that much easier. On the other hand, the amount of information yielded by any one search can be daunting. I often find myself exhausted after doing a literature search, sorting through the relevant abstracts even before reading the study. It is difficult to keep abreast of advances made in the past few years, let alone a decade or more.

By putting date limits on what we review, however, we run the risk of recreating what has already been described. My alarm bell always goes off when a student concludes that there is nothing known about a given

phenomenon. I am concerned about the superficial foundational knowledge of some of our scholars.

How do we deal with the vast amount of information that is being produced while familiarizing ourselves with the most current research? True, the scientific community has tried to address the issue with abstracts, summaries, annotated bibliographies, meta-analyses, integrative reviews, and so forth. These practices have without a doubt made past research more accessible and digestible. They are critical in familiarizing scholars and clinicians with a given area of interest. Clinicians in particular do not have the time to analyze and synthesize vast amounts of information. We are going to have to rely on these techniques more and more, and it is incumbent on the scholars who are writing the reviews to develop impeccable scholarship skills. They must go back to the earliest research in the area. They must go back to primary sources. We in turn must scrutinize the reviews and examine the reference lists very carefully to ensure that they are all-encompassing and go back not 5 years, but 10, 20, 30 years and more. We still have to rely on the reviewers for analyzing and synthesizing information.

This is all very well for reviews. Reviews are just one tool available to us. The issue still remains: How do we ensure that we are building knowledge that has the depth necessary for a thorough understanding of a phenomenon?

I have come to the conclusion that there is no fast and easy way to circumscribe the time and energy required to develop in-depth knowledge in a given field of practice. Specialized, in-depth knowledge is acquired through years of study and experience in the skills of inquiry. As researchers and reviewers, we need to consider the nature of the knowledge before deciding whether it is appropriate to limit a search to a given number of years and before pronouncing a literature review outdated. As educators, we need to help our students develop skills of inquiry. We need analyses that include both an in-depth review of the research on a given topic and an understanding of the historical developments. We need to use primary sources instead of relying on secondary sources (we all know what can happen with a poor telephone connection: messages get distorted and re-interpreted as they are passed along). These are the scholarship attitudes, habits, and practices that need to be instilled in all of us.

Thus, we need to carefully consider the practice of limiting our literature reviews to the last 5 years. If we fail to stop and think about what we are doing and why we are doing it, we risk taking nursing science backward instead of forward. We risk re-inventing the wheel, or at best spinning our wheels. We run the risk of unwittingly promoting ageism of knowledge, and in so doing planting trees with very shallow roots.

A "best before" date may apply to food purchases. Surely it has no place in scholarship.

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Guest Editorial and Discourse

Nursing Care Effectiveness: Here to Stay

Sandra LeFort

Is it just me, or are we living at a time when words beginning with the letter "e" are pre-eminent in health-care discourse? Four words in particular come to mind, three of which are *effectiveness, efficacy,* and *efficiency*. On close inspection, these words all have the same Latin root, "effectus." Webster's dictionary provides eight definitions for the noun *effect*, the first being "something that is produced by an agency or cause; result; consequence" (Braham, 1996). Other definitions connote purpose or intent and the power to produce results. Note that these definitions are neutral or value-free; that is, the "something that is produced" could be either positive or negative, intended or unintended. However, when *effect* is used in the adjectival form, it is no longer neutral but takes on a positive value. In the context of health care, *effective* is applied to something that produces an expected effect under everyday conditions, *efficacious* refers to something capable of achieving a desired end or purpose under ideal conditions (often in the context of randomized clinical trials [RCTs]), and *efficient* implies skilful accomplishment of a purpose with little waste of effort or resources (Mark & Salyer, 1999).

There are other important gems to be gleaned from the multiple meanings of *effect*. Of the eight definitions, three have more nebulous meanings: a mental or emotional impression produced, for example, by a painting or a speech; the making of a desired impression — "The expensive car was only for effect"; and lastly, an illusory phenomenon — a three-dimensional effect. So not all effects are easy to categorize or measure (how do we capture the effect of a caring gesture, or of being in the presence of a dying child?), nor are they all real, genuine, or necessarily long-lasting.

Which brings me to the final "e" word: *evidence*. If effects are contingent on a number of parameters such as agency, strength, and intention, then we need evidence to confirm the relationships of these parameters with the effect. Likewise, if effects are not always what they seem, then

we need evidence that the produced effects are the intended effects and that they are "real" and genuine.

What, then, is nursing care effectiveness (NCE), the focus of this issue of the Journal? If we look at the first definition, it is "something that is produced" (the desired effect, result, or consequence) by an agency (e.g., a model or system of nursing care) or cause (e.g., specific nursing intervention). It also implies intent or purpose (goal-directed) and the power or strength to effect the desired outcome. To summarize, NCE is about the power or strength of nursing care to produce intended and desired health outcomes for patients, families, and communities. The move to evidence is a logical and necessary extension of NCE. We need evidence to build our knowledge base so that we can provide quality care. We need evidence that professional nurses are effective agents in producing desired outcomes through systems of care delivery and processes of care and by their presence and discrete actions or interventions. Of course, the logical extension of evidence of NCE is using that evidence appropriately in decision-making both in practice and in policy-making. Evidence is needed not only at the bedside but also in the boardroom where decisions about the health-care system and the nursing workforce that ultimately impact on the health of Canadians are made.

How Far Have We Come?

Many of the ideas related to NCE are embedded or implied in the definition of *effect*. For some reason, I find it reassuring that our current apparent obsession with effectiveness is based on a long-standing idea. However, it is only relatively recently that ideas about effectiveness have come into sharp focus for nursing. The question is, why did it take so long, given the rich legacy of Florence Nightingale (McDonald, 2001)?

In a seminal paper on the history of nursing knowledge development in the United States, Gortner (2000) reports that the first case studies of nursing interventions and their effects appeared in the 1920s. However, with the Depression and the move of nurses to hospitals from the traditional home setting, such studies took a back seat to studies of delivery of nursing services from an organizational perspective (as opposed to a patient outcomes perspective). In a guest editorial in *Nursing Research* titled "Research in Nursing Practice — When?," Virginia Henderson (1956) reported that studies of the nurse outnumbered studies of practice by 10 to 1. It was not until the early 1960s that grants for nursing practice studies, especially those related to nursing acts and their outcomes, were established. Only in 1967 did reports of controlled attempts to study the impact of nursing interventions begin to appear in the literature (Gortner).

Since then, and particularly in the past two decades, there has been an explosion in nursing knowledge development (Fitzpatrick & Stevenson, 2003; Gortner, 2000; Hinshaw, 2000), with more than 400 nursing journals publishing at least some research (Droogan & Cullum, 1998). In large part, these gains can be attributed to the development of doctoral programs in nursing and more stable support for nursing research (Gortner; Wood, 2001). The call for more and better studies on the impact or effectiveness of nursing interventions and studies of patient outcomes related to nursing care are at the forefront of research priorities in many jurisdictions (Canadian Nurses Association, 2001; DiCenso, Cullum, & Ciliska, 2002; Gortner; Hinshaw; Pringle & White, 2002). The emphasis on effectiveness studies has been bolstered by the evidence-based practice (EBP) movement spearheaded by the Cochrane Collaboration and the Cochrane Library (see the paper by Forbes and Clark in this issue), other entities such as the Agency for Healthcare Research and Quality in the United States (Hubbard, Walker, Clancy, & Stryer, 2002), and the general overall shift in health-care systems to accountability and quality (National Forum on Health, 1997).

Nursing journals are publishing increasing numbers of intervention studies that use rigorous designs such as RCTs and increasing numbers of systematic reviews and meta-analyses of studies of NCE (Fitzpatrick & Stevenson, 2003; Hinshaw, 2000). The following illustrates just how far we have come. As part of an ongoing program of work exploring the evidence underpinning nursing interventions, Droogan and Cullum in 1998 identified and appraised existing systematic reviews in nursing. Using rigorous search strategies, they found 36 reviews of effectiveness. Only 19 reviews met three well-established quality criteria (clear question related to effectiveness, comprehensive search strategy, and appropriate data synthesis) and were considered to be high-quality systematic reviews of effectiveness. Although promising, the relatively small number of high-quality reviews of NCE was disappointing.

However, Droogan and Cullum (1998) predicted that there would be a dramatic increase in the number of high-quality reviews of nursing interventions. To test whether their prediction was correct, I conducted a search in July 2003 on the Database of Abstracts of Reviews of Effects (DARE), which is part of the Cochrane Library (I accessed it on a Web site affiliated with the Centre for Evidence-Based Nursing at the University of York in the United Kingdom: www.york.ac.uk/darehp.htm). Using the search terms nursing, nursing care, and nursing interventions, I located 255 high-quality systematic reviews of effectiveness from 1983 to 2003. The interventions evaluated in these reviews were wide-ranging, for example:

- interventions for at-risk populations (e.g., frail elders and their caregivers, people with mental illness)
- education and psycho–education interventions for special populations (e.g., pre-op teaching, cancer, cardiac surgery, mental health, diabetes)
- lifestyle/health promotion interventions (e.g., physical activity in the aged, school-aged children, obesity prevention)
- clinical interventions (e.g., nursing management of fever, wounds, and pressure sores, weaning patients from mechanical ventilation, vital signs, oral hydration, use of music for hospitalized patients, pain management)
- systems of care delivery (e.g., quality systems in nursing homes, palliative care delivery systems, home visiting for public health nursing interventions, models of community care for severe mental illness)
- products (e.g., for ear syringing, wound cleaning, incontinence)
- medications for common conditions (e.g., fever, joint pain, urinary tract infection)

Another 87 citations referred either to completed reviews or to proposals for Cochrane Systematic Reviews of RCTs that were in progress, many of which related directly to nursing interventions. Examples of reviews being spearheaded by Canadian nurse researchers include: psychosocial interventions for preventing postpartum depression (Dennis & Kavanagh, 2003), postnatal parental education (Gagnon & Barkun, 2003), continuous support for women during childbirth (Hodnett, Gates, Hofmeyr, & Sakala, 2003), and sucrose for analgesia in newborn infants in pain (Stevens, Yamada, & Ohlsson, 2003). So even with the relatively unsophisticated search strategy noted above, there has clearly been a substantial increase in the number of high-quality systematic reviews of nursing interventions that provide rigorous evidence for practice and policy and, just as importantly, provide direction for further research.

Just Getting Started

Despite these considerable improvements in the volume and quality of nursing intervention studies and systematic reviews of effectiveness, we are just getting started. The following illustration helps to put our progress in perspective. In November 1999 the Registered Nurses Association of Ontario (RNAO) initiated the Nursing Best Practice Guidelines Project (www.rnao.org/bestpractices/about/bestPractice). The goal of the project is to support nurses by providing them with best practice guidelines for client care. Best practice generally refers to practices that result in the best possible client outcomes, and in some cases lower

costs, and are based on the best available evidence, although what counts as evidence may be quite variable (Youngblut & Brooten, 2001). As of July 2003, RNAO expert project teams had completed 11 guidelines and four additional guidelines are in development.

A review of the most recent nursing best practice guidelines published in 2002 on pain and pressure ulcers is instructive in relation to the strength of evidence found to support best practice. The guidelines related to the Assessment and Management of Pain (Registered Nurses Association of Ontario [RNAO], 2002a) list 66 recommended practices to improve the care of those in pain. Each recommendation has been graded in terms of the strength of the evidence found to support the recommendation using a hierarchy of evidence (Scottish Intercollegiate Guidelines Network, 2000).

Grade A indicates at least one RCT as part of a body of literature of overall good quality and consistency addressing the specific recommendation. It may include a systematic review and/or meta-analysis of RCTs. *Grade B* indicates well-conducted clinical studies but no RCT on the topic. It includes evidence from well-designed controlled studies without randomization, quasi-experimental designs, and non-experimental studies such as comparative, correlational, and case studies. The RNAO panel also supported the inclusion of well-designed qualitative studies. *Grade C* indicates that the evidence comes from expert committee reports and expert opinion. It indicates absence of directly applicable clinical studies of good quality.

Somewhat surprisingly, of the 66 recommendations for best practices for pain care, 44 had a "C" designation (that is, no research evidence of good quality), 10 had a "B" rating, and only 12 had an "A" rating.

Evidence ratings for best practices for pressure ulcers fared somewhat better. The expert panel for the Assessment and Management of Grade I to IV Pressure Sores (RNAO, 2002b) used a modified version of the evidence hierarchy noted above (Agency for Health Care Policy and Research, 1994). The major differences were that an "A" grade needed at least two RCTs and there was no mention of evidence from qualitative studies in the "B" category. Of the 47 recommendations for best practices for pressure sores, 24 had a "C" rating (no research evidence of good quality), 13 had a "B" rating, and eight had an "A" rating.

Thus, according to the RNAO best practice guidelines, one half to two thirds of recommended nursing care related to assessment and management of pressure ulcers and pain, respectively, lack any good-quality research evidence to support these practices. This is alarming given that pain and pressure ulcers are well studied compared to other areas of practice (Cullum, 2001; Gordon et al., 2002). While it may be true that not all of nursing care will require research evidence, these findings should

make us take a long, hard look at the state of our science and what we know about how effective our care really is. Clearly we still have a long way to go.

Questions, Some Answers, and Several Challenges

The papers in this issue of the Journal raise questions, provide some answers, and pose important challenges for researchers and users of research related to NCE. The paper by Forbes and Clark is a primer on using the Cochrane Library to answer questions about NCE. The authors review the benefits of systematic reviews of NCE studies compared to individual studies and provide the rationale for using results of systematic reviews along with contextual information when making clinical decisions. They describe the Cochrane Collaboration and the Cochrane Library and indicate the content of reviews of interest to nurses. Finally, they encourage all of us to participate in this exciting international collaboration of researchers and clinicians.

From a methods perspective, the paper by Sidani and Epstein challenges researchers to rethink how they evaluate NCE. These authors argue that many studies of nursing interventions are really efficacy studies (conducted under ideal conditions) as opposed to effectiveness studies that evaluate the outcomes of care in the real world of practice. Client outcomes are influenced by many factors and seldom, if ever, exhibit a direct cause-effect relationship. Knowledge is needed about which subgroups of patients benefit most from interventions, from which component of care, given at what dose or strength, and under what circumstances. In studies evaluating systems of nursing care, greater attention needs to be given to the actual processes of care provided in relation to the nature, quality, and safety of care and their contribution to nursing-sensitive patient outcomes.

Following up on the idea of complexity in patient-care situations, Paterson and Thorne present an articulate, thoughtful discussion of the potential for meta-synthesis of qualitative studies to inform our understanding of the complexity of health outcomes and the manner in which nursing care might influence them. Like Sidani and Epstein, they argue that we need to see beyond direct cause-and-effect interpretations of nursing interventions and outcomes and recognize the wide range of personal and contextual variables that impact on health. They argue that both qualitative and quantitative studies together will provide better understanding and evidence of care processes to inform practice and policy.

Turning to how evidence of NCE is used in practice, Estabrooks describes what is known about individual- and organizational-level vari-

ables that influence research use. She offers thoughts on how these findings relate to organizations and the role of nursing service administrators in creating and sustaining practice environments that support evidence-based decision-making. One of the most intriguing aspects of Estabrooks's paper is her discussion of the importance of groups and social interaction in influencing how nurses conduct their practice. She introduces the idea that nurses are not just users of knowledge; they also produce knowledge in an epistemic community as a result of going about their everyday work. Estabrooks suggests that a better understanding of how unit-based knowledge is produced may help us to understand how nurses might use research in practice.

Demonstrating that good-quality evidence alone is not sufficient for policy change, Shamian and Griffin, from the Office of Nursing Policy at Health Canada, highlight the research evidence that links nursing care (i.e., experience of nurses, nursing staffing ratios, and skill mix) to patient outcomes, including patient safety, symptom management, patient satisfaction with care, morbidity, and mortality, as well as to system outcomes (e.g., re-admission rates and costs). They point out that although there is high-quality evidence linking the quality of nursing worklife to nursing care and patient outcomes, policy changes to improve work environments for nurses have been slow in coming. Shamian and Griffin describe the policy-making process and the policy cycle in relation to this research evidence. They discuss the newest policy developments such as linking hospital accreditation to healthy workplaces and the development of healthy workplace guidelines, including relationship and communication aspects of care, as well as new government initiatives to improve patient safety. They remind us that political acumen along with evidence is necessary to shape policy.

The last two contributions to this issue of *CJNR* illustrate two exciting developments. First, the Happenings article describes a newly funded initiative: the Montreal Inter-university Group for Nursing Research/ Groupe de recherche interuniversitaire en soins infirmiers de Montréal (GRISIM). Nurse scientists from McGill University and the Université de Montréal, along with multidisciplinary and national/international collaborators, will work together to (1) develop studies on nursing interventions related to developmental transitions, health crisis episodes, and transitions through health-care environments and evaluate the impact of the interventions on health outcomes; (2) create and consolidate a critical mass of nurse scientists, including training students with regard to the development of interventions; and (3) carry out knowledge transfer activities that will influence nursing practice in clinical settings. Finally, the book *Nursing-Sensitive Outcomes: State of the Science* reviewed by Petryshen

is a much-needed resource for anyone interested in outcomes related to the effectiveness of nursing care.

Final Thoughts

Given that nursing science has come into maturity only in the past decade (Edwards, 2003; Gortner, 2000), the progress made in the volume and quality of studies of nursing care effectiveness is impressive. But we clearly have a job ahead of us. We need to expand our notion of "evidence" to include qualitative studies. Remember one of the nebulous meanings of *effect* — that of a mental impression made by a great work of art, or a caring touch? We need well-conducted qualitative studies to accurately capture all elements of an intervention or process of care that make a difference (Morse, Penrod, Kassub, & Dellasega, 2000; Sandelowski, 1996) as well as capture the complexity of the caregiving situation. We need better partnerships with clinicians if we are to take full advantage of the fertile knowledge of clinicians related to what works in everyday practice (Ducharme, 2003; Morse, 2002). Although few of the papers in this issue of the Journal discuss cost-effectiveness or efficiency, these questions will remain a central concern for the health system and will need to be addressed in effectiveness studies (Sochalski, 2001). (For an interesting evaluation of the effectiveness and efficiency of a nursing approach to communication in trauma care, I recommend the paper by Morse et al., 2000.) We need to think of the broader policy or systems implications of our work — moving from the bedside to the boardroom. Nancy Edwards (2003) describes moving from a study predicting the use of grab bars in bathrooms by older adults to working with the Canadian Standards Association, the Home Building Association, and the National Research Council to change building codes so that all new homes have bathtub grab bars installed as standard fixtures. Finally, we need to continue with research into nursing services and the impact on patient and system outcomes.

There's no doubt about it — the "e" words are here to stay. Effectiveness, efficacy, efficiency, and evidence. I wonder what the field will look like 10 years from now.

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Résumé

La Cochrane Library permet de répondre aux questions liées à l'efficacité des soins infirmiers

Dorothy Forbes et Kathie Clark

En présentant une synthèse des principales études portant sur les soins infirmiers et en résumant les résultats des interventions, les recensions systématiques offrent aux infirmières un moyen de gérer la quantité impressionnante d'information disponible. La Cochrane Library compte parmi les sources fiables de données en cette matière ; son fonctionnement, de même que celle de la Cochrane Collaboration, sont brièvement présentés. Les auteurs encouragent les infirmières cliniciennes et administratrices à consulter la base de données et incitent les chercheuses à y contribuer en menant des recensions systématiques dans le domaine de l'efficacité des soins infirmiers.

Mots clés : Cochrane Library, Cochrane Collaboration, recensions systématiques, efficacité

The Cochrane Library Can Answer Your Nursing Care Effectiveness Questions

Dorothy Forbes and Kathie Clark

Systematic reviews help nurses to manage the overwhelming volume of available information by synthesizing valid data from primary studies and summarizing the results of interventions. One reliable source of systematic reviews of health-care interventions is the Cochrane Library. This paper briefly describes the Cochrane Collaboration and the Cochrane Library. It also encourages nurse clinicians and nurse administrators to use the Cochrane Library and encourages nurse researchers to contribute to the Cochrane Library by conducting systematic reviews in the field of nursing care effectiveness.

Keywords: Cochrane Library, Cochrane Collaboration, systematic reviews, effectiveness questions

Nurses and other health-care professionals are expected to base their practice on the best available evidence. However, accessing reliable and valid evidence is a challenge in today's busy practice environment with its explosion of health-care information. Information overload is a daily reality for nurses as they struggle to cope with the tens of thousands of health-care journals published every year, hundreds of thousands of Web sites, an avalanche of electronic mail, and electronic information from a variety of sources (Booth, 1996; Palmer & Brice, 1999).

Systematic reviews can help nurses manage the overwhelming volume of information available by synthesizing valid data from primary studies and summarizing the results of interventions. The knowledge derived from systematic reviews of multiple studies is superior to that derived from the findings of individual studies, because reviews provide a more precise estimate of treatment effects (Clark & Ohlsson, 2003). This knowledge allows nurses to integrate the best available evidence from systematic reviews with information from contextual sources (e.g., patient and family values, preferences, costs, and resources) when making clinical decisions. One reliable source of reviews of health-care interventions is the Cochrane Library. The Cochrane reviews are prepared systematically, have limited possibility of bias, and are kept up to date (Clark & Ohlsson, 2002, 2003). A systematic review is defined as "a review of a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research, and to collect and

analyze data from the studies included in the review" (Cochrane Collaboration, 2003, p. 27). This paper briefly describes the Cochrane Collaboration, the Canadian Cochrane Network and Centre (CCN/C), and the Cochrane Library. Nurse clinicians and administrators are encouraged to use the Cochrane Library. Nurse researchers are urged to contribute to the Cochrane Library by conducting systematic reviews that address nursing care effectiveness questions. In addition, nurses are encouraged to participate in the Cochrane Collaboration and the CCN/C.

The Cochrane Collaboration

Archie Cochrane, a Scottish physician and epidemiologist, inspired the formation of the Cochrane Collaboration by stating, "It is surely a great criticism of our profession that we have not organized a critical summary, by specialty or subspecialty, adapted periodically, of all relevant randomized controlled trials" (Cochrane, 1979, p. 8). In 1992 the first Cochrane Centre was opened in Oxford in order to "help people make well informed decisions about health care by preparing, maintaining, and ensuring the accessibility of systematic reviews of the effects of health-care interventions" (Cochrane Collaboration, 2001, p. 1). In response to a call for the establishment of centres in other countries to promote the Cochrane agenda, the Canadian Centre was opened in 1993 at McMaster University and there are now national centres in Australia, Brazil, China, Germany, Italy, the Netherlands, South Africa, Spain, the United Kingdom, and the United States, as well as a Nordic Centre serving Denmark, Finland, Norway, and Russia.

The Canadian Cochrane Network, established in 1994, comprises representatives from 16 academic health sciences sites across Canada. The Site Representatives and Site Groups engage in a variety of activities to promote regional awareness of and participation in the Cochrane Collaboration, access to the Cochrane Library, local recruitment and support of reviewers, and training workshops (Clark & Ohlsson, 2002). The Site Representative(s) at your nearest health sciences university (which can be found at http://cochrane.mcmaster.ca) can connect you with others who are conducting or promoting the use of systematic reviews. For example, the University of Saskatchewan Site Group regularly holds luncheons featuring presentations on the use and conduct of systematic reviews. Recent workshops on developing a Cochrane protocol and completing a review attracted researchers from across Canada as well as from Michigan, Rhode Island, and the Mayo Clinic in Minnesota.

Information about upcoming workshops on Cochrane reviews can be found at http://cochrane.mcmaster.ca.

Preparation and maintenance of Cochrane reviews are the responsibility of 50 international Collaborative Review Groups, which cover every important area of health care. Six of these — the Back, Neonatal, Inflammatory Bowel Disease, Musculoskeletal, Hypertension, and Effective Practice and Organization of Care Collaborative Review Groups — have their editorial base in Canada. If you are interested in conducting a Cochrane review, contact the Collaborative Review Group associated with your particular area of interest (www.cochrane.org).

If your nursing care effectiveness question is broader than the issues addressed by the Collaborative Review Groups, you may wish to contact a Field (www.cochrane.org). Fields have a broader scope of interest and activities than Collaborative Review Groups. They do not conduct reviews but support the relevant Review Groups in their preparation of reviews. Currently, there are 10 Fields (e.g., Cancer Network, Primary Health Care, Health Promotion and Public Health, Health Care of Older People, Complementary Medicine), one of which has its editorial base in Canada: the Child Health Field located at the University of Alberta.

If your interest is the methodology of systematic reviews, then a Cochrane Statistical Methods Group is the place for you (www.cochrane.org). The Methods Groups, of which there are 11 at present, support the Cochrane Collaboration's commitment to the principle of "ensuring quality" (Clark & Ohlsson, 2002). They contribute to the ongoing improvement of the validity and precision of Cochrane systematic reviews. Their members provide advice on all statistical issues relevant to systematic reviews, co-ordinate practical statistical support for the Review Groups, monitor training materials, and develop and validate the statistical software used within the Collaboration.

To better inform your patients and clients about the effectiveness of their health-care treatments, you may wish to direct them to a useful and valid resource: the Consumer Network (www.consumernetwork.com). Brief, plain-language consumer synopses of Cochrane reviews and abstracts can be found at this Web site.

Lastly, there are opportunities to serve on the Advisory Board of the CCN/C. The Board comprises the 16 Site Representatives plus representatives of 19 Affiliate Organizations (national health professional and consumer organizations) who promote the Cochrane Collaboration among their members and identify the needs and interests of their members with regard to strategic planning by the CCN/C. The Canadian Nurses Association's current representative is Dr. Carole Estabrooks, a member of the Faculty of Nursing at the University of Alberta.

The Cochrane Library

The Cochrane Library is published four times a year and comprises the Cochrane Database of Systematic Reviews that currently consists of 1,669 completed reviews and 1,266 protocols (Issue 2, 2003). In addition, the Library houses the Database of Abstracts of Reviews of Effectiveness (DARE: 4,006 abstracts of non-Cochrane reviews), Cochrane Central Register of Controlled Trials (CENTRAL: 362,540 citations of clinical trials), Cochrane Database of Methodology Reviews (16 reviews on methodological issues), Health Technology Assessments (3,138 citations of HTA Reports), and the NHS Economic Evaluations Database (11,485 abstracts of health economic studies), as well as information about the Cochrane Collaboration. The Cochrane Library is available through academic libraries and by subscription, either on CD-ROM or via the Internet, at a cost of approximately $350 CAN for individual subscribers (www.update-software.com). Structured abstracts of all Cochrane reviews are available free on the Internet at http://www.update-software.com/Cochrane/abstract.htm (available soon through Wiley InterScience). Specialized databases derived from the main databases are also being planned.

Nurse clinicians, administrators, consumers, and researchers can access high-quality, up-to-date information from reviews found in the Cochrane Library. Nurse clinicians and administrators may seek answers to their questions about the effectiveness of health-care interventions that will assist them in their health-care decision-making. Consumers may seek information on their health conditions and how best to treat them. Researchers may gain an understanding of the state of the science and areas requiring further research. Members of review teams that make funding allocation decisions may ensure that the proposed research question fills a gap in the state of the science and has not been previously addressed.

The Cochrane Library also provides the following support to those who wish to conduct systematic reviews: (a) contact information for Review Groups and other Cochrane Collaboration entities; (b) the references in the Cochrane Review Methodology Database; (c) manuals such as *Reviewers' Handbook* (http://cochrane.mcmaster.ca) or *Open Learning Material for Cochrane Reviewers* (www.cochrane-net.org/open-learning); (d) a Frequently Asked Questions (FAQ) list for RevMan; (e) software for preparing and maintaining Cochrane reviews (e.g., Review Manager [RevMan 4.2: www.cochrane.org]); and (f) contact information for the CCN/C and its Statistical Consultant (http://cochrane.mcmaster.ca).

Why Become Involved?

Cochrane reviews have historically been prepared and used primarily by physicians. However, this situation is changing as nurses and other health-care professionals seek reliable and relevant information on effectiveness. The Cochrane Library houses many reviews that are relevant to nurses. Subjects include water for wound cleansing, bladder training for urinary incontinence in adults, fibre for the prevention of colorectal adenomas and carcinomas, interventions for preventing eating disorders in children and adolescents, education interventions for asthma in children, interventions for helping people to follow prescriptions, interventions for preventing falls in the elderly, community interventions for preventing smoking in young people, vitamin A supplementation for reducing the risk of mother-to-child transmission of HIV infection, case management for people with severe mental disorders, specialist nurses in diabetes mellitus, the effects of nursing record systems on nursing practice and health-care outcomes, and home care versus in-patient hospital care.

Nurses are also beginning to conduct their own reviews (e.g., Forbes et al., 2002; Hodnett, 2002a, 2002b, 2002c, 2002d; Moore, Cody, & Glazener, 2001; Shea, Cranney, et al., 2002). As more nurses become involved in developing protocols and completing systematic reviews, the findings will be more relevant to the questions raised by nurses and their patients/clients. By participating as either the first reviewer or a peer reviewer, you will gain in-depth knowledge in your field of study, learn new research methods, become aware of areas requiring further research, and establish links with local, national, and international researchers with similar interests but with a diversity of professional and cultural backgrounds (Shea, Wells, & Tugwell, 2002).

Other opportunities to participate in the Cochrane Collaboration include joining a Field, a Methods Group, or the Consumer Network, or hand searching a journal. If you are interested in learning more about the Cochrane Collaboration or wish to participate, contact the CCN/C Site Representative nearest you (http://cochrane.mcmaster.ca). Let us take up Archie Cochrane's challenge to "organize a critical summary" of findings relevant to the questions raised by nurses and our patients/clients, by using and contributing to the Cochrane Library and participating in the Cochrane Collaboration or the CCN/C.

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Résumé

Améliorer l'évaluation de l'efficacité des soins infirmiers

Souraya Sidani et Dana R. Epstein

Pour établir une solide base de connaissances servant à orienter la pratique, il est essentiel de pouvoir évaluer l'efficacité des soins infirmiers. Les nombreuses études qui ont été menées sur le sujet visaient à évaluer les interventions en fonction des résultats escomptés. Toutefois, même si les résultats qu'elles présentent sont encourageants, ces études ne fournissent pas un portrait exhaustif et réaliste de l'utilité des soins infirmiers, ni ne tiennent compte des caractéristiques des patients ou de l'exécution des soins. Le choix des résultats ne reflète pas non plus les bienfaits directs découlant des soins infirmiers. Cet article traite des méthodes de recherche évaluative susceptibles de mettre en lumière le rôle unique des soins infirmiers dans un cadre réaliste et quotidien; les auteures fournissent des exemples concrets pour illustrer leur propos.

Mots clés : évaluation des soins infirmiers, méthodes de recherche, caractéristiques des patients, résultats

Enhancing the Evaluation
of Nursing Care Effectiveness

Souraya Sidani and Dana R. Epstein

Evaluating the effectiveness of nursing care is necessary for developing a sound knowledge base to guide practice. Several studies have been conducted to evaluate the effectiveness of nursing care or interventions in producing the desired outcomes. While the results of these studies are encouraging, they do not provide a comprehensive and realistic evaluation of the contribution of nursing. Factors related to patient characteristics and implementation of care are not accounted for. The outcomes selected do not reflect the direct benefits of nursing care or interventions. In this paper, research methods for conducting effectiveness research in a way that would identify the unique contribution of nursing care delivered under the conditions of the real world of everyday practice are discussed. Examples are provided to illustrate the points of discussion.

Key words: nursing care and intervention evaluation, research methods, participant characteristics process evaluation, outcomes

With the increasing demand for accountability, nurses must demonstrate the effectiveness of the care they provide in producing favourable outcomes (Elkan, Blair, & Robinson, 2000). This demand is met by systematically investigating the effects of nursing care on intended, desired outcomes. The effects of nursing care are evaluated at two levels. The first entails specific nursing interventions (referred to as nursing intervention, hereafter) that address a particular clinical problem experienced by patients. Patient education and music therapy are examples of nursing interventions aimed at enhancing the patient's knowledge of self-care and managing anxiety, respectively. The second level is more global. It focuses on the quality of care in general (referred to as care, hereafter). At this level, nursing is often represented with the structural variable of staff mix, nursing worked hours per case, or care delivery model. Outcomes that are frequently examined include mortality, morbidity (or complications), and patient satisfaction with care (e.g., Aiken, Smith, & Lake, 1994; McGillis Hall et al., 2001; Tourangeau, Giovannetti, Tu, & Wood, 2002).

The results of studies that evaluate the effects of nursing interventions or care are encouraging because they demonstrate nursing's contribution to outcome achievement. They do not, however, comprehensively and accurately depict the effectiveness of nursing interventions and care. These studies tend to focus on the direct relationship between the vari-

able representing nursing and the selected outcomes, to the exclusion of other factors that could affect the outcomes. The focus on this direct relationship is not consistent with the focus of effectiveness research. The purpose of effectiveness research is to test the robustness of the intervention or care effects for different subgroups of the target patient population, under the conditions of the real world of everyday practice (Whittemore & Grey, 2002). In addition, the focus on the direct relationship between nursing and outcomes does not realistically reflect the complexity of the real world of everyday practice where the intervention or care is provided. Further, the outcomes selected in the investigation of these direct relationships tend to be generic, reflecting the indirect benefits of nursing interventions and care (Mitchell, Ferketich, & Jennings, 1998).

Several factors, inherent in everyday practice, influence the delivery and expected outcomes of nursing intervention or care. Of particular interest in effectiveness research are the factors associated with the characteristics of the patient receiving care and with the nature of the care provided (Cohen, Saylor, Holzemer, & Gorenberg, 2000; Mitchell et al., 1998; Sidani & Braden, 1998). A failure to account for these factors when evaluating nursing care effectiveness limits our understanding of the patient subgroups that most benefit from the intervention or care, and the specific component and dose of the intervention or care that contribute to the achievement of desired outcomes (Hegyvary, 1993; Sidani & Braden). Knowledge of which patient subgroups benefit from which component(s) of intervention or care, at which dose, is needed to guide the appropriate prescription and the continuous improvement of intervention or care delivery (Costner, 1989; Goldfried & Wolfe, 1996). Generic outcomes are not reflective of or responsive to the nature of the intervention and care. Therefore, they will not detect the expected intervention or care effects. Generic, insensitive outcomes may lead to incorrect conclusions about nursing care effectiveness.

A realistic, comprehensive evaluation of nursing care effectiveness takes into account the complexity of the real world of practice. Such an evaluation demands that researchers attend to patient characteristics and to the nature and implementation of nursing intervention or care. Also, it requires a careful selection of outcomes and of instruments measuring the outcomes. In this paper we present the research methods used to address patient characteristics, the nature and implementation of nursing care, and outcome selection in previous effectiveness studies. The importance of attending to these factors and strategies for refining the design and conduct of effectiveness research are discussed and illustrated with recently published studies. Each section addresses one of these three factors.

Investigating the Influence of Patient Characteristics

In studies evaluating the effects of any treatment, the focus on demonstrating a direct relationship between the treatment and the anticipated outcomes led to an emphasis on controlling any factors that influence outcome achievement (Cook & Campbell, 1979; Lipsey, 1990). The most important factors are the characteristics of the patients receiving care. They are considered extraneous factors that may influence the outcomes. Therefore, patient characteristics are controlled for by carefully selecting participants or by residualizing or adjusting the outcomes for the effects of patient characteristics before determining the impact of the intervention or care on the outcomes.

Controlling the influence of patient characteristics on outcomes produces results that support the effectiveness of the intervention or care for a subgroup of patients who meet the selection criteria. The results are not applicable to various subgroups of patients seen in everyday practice (Brown, 2002; Sidani & Braden, 1998). Yet, identifying patients who benefit from the intervention or care is important to guide practice. Knowledge of which patients do and do not benefit from the intervention guides the provision of appropriate care and the design and delivery of care to various patient subgroups. In generating this type of knowledge, we are required to view patient characteristics not as extraneous factors that should be controlled but as substantive factors of interest (Goldfried & Wolfe, 1996; Sidani & Braden). Therefore, the influence of patient characteristics on outcome achievement is examined.

The application of this perspective in effectiveness research requires identification of pertinent patient characteristics that affect the intended outcomes, measurement of the characteristics, and determination of their influence empirically. Identification of pertinent characteristics is based on the theory underlying the intervention or care, previous research, or clinical observations (Sidani & Braden, 1998). Participants who have these characteristics are included in the study, rather than excluded as is conventionally done. Therefore, the selection criteria are non-restrictive, involving a minimal set of exclusion criteria.

Selecting participants on the basis of non-restrictive criteria increases the likelihood that various subgroups of the target population are represented (Glasgow, Vogt, & Boles, 1999; Whittemore & Grey, 2002). These subgroups are defined by their profiles on pertinent characteristics and are anticipated to show variability in outcome achievement. Data are then collected on the pertinent characteristics, using standard measures of demographic, personal, and health-related variables. Subgroup analyses are conducted to examine differences in the outcomes among subgroups of participants. Factorial analysis of variance (ANOVA) or

Hierarchical Linear Models (HLM) are statistical techniques used to conduct subgroup analyses (Brown, 2002; Sidani & Braden, 1998).

Few nursing care effectiveness studies have investigated the influence of patient socio-demographic, personal, and health-related characteristics on outcomes. Two studies illustrate the application of the perspective that considers patient characteristics of substantive interest. These studies evaluated nursing effectiveness at the level of interventions. In a meta-analytic study, age was found to be negatively associated with the knowledge of self-care gained following psycho-educational interventions (Brown, 1992). Older participants had a low level of knowledge. Gender differences were reported in the outcomes expected of an early home-recovery-information intervention in patients who underwent coronary artery bypass graft surgery (Moore & Dolansky, 2001). Women reported poorer physical functioning and more symptoms than men at post-test. Results of several studies that evaluated effectiveness at the level of nursing care support the direct relationship between patient characteristics and outcomes. Patients' age and health status (operationalized as severity of illness, comorbidity, or perception of general health) were found to be significant predictors of complication rates (Geraci et al., 1999), fall-related injury (Jennings, Loan, DePaul, Brosch, & Hildreth, 2001), and satisfaction with care (Hargraves et al., 2001; Thi, Briancon, Empereur, & Guillemin, 2002).

The results of these nursing effectiveness studies indicate that patients with different characteristics benefit, to various extents, from nursing care or interventions. These findings are more informative than those of studies in which patient characteristics were controlled, and have clinical implications. When patient characteristics are controlled, the results indicate that the intervention or care was, on average, effective for patients who met the selection criteria. In contrast, the findings of studies in which the influence of patient characteristics was investigated inform nurses of the profile of patients who did and did not benefit from the intervention or care (Brown, 2002; Sidani & Braden, 1998). Nurses equipped with knowledge about who will benefit from the intervention or care are well prepared to plan and deliver the most appropriate care for the patient. For instance, based on the above findings, nurses may decide to give a psycho-educational intervention to young patients and to closely monitor elderly patients for complications. In addition, nurses who are aware of the subgroup of patients who would not benefit from the intervention or care are in a position to adjust or design new interventions or care that will meet the needs of this subgroup. The ultimate goal is to continuously improve the quality and effectiveness of nursing care for various patient groups.

Investigating the Nature and Implementation of Nursing Care

The nature of nursing investigated in effectiveness studies varies with the level of specific interventions and global care. Therefore, each level will be addressed separately in this section.

At the intervention level, nursing is defined by the specific intervention under evaluation. An intervention refers to a treatment or procedure that is implemented by nurses with or on behalf of patients to move the patients' conditions towards health outcomes that are beneficial for them (Snyder, Egan, & Najima, 1996). In an intervention effectiveness study, participants are assigned to the experimental group that receives the intervention under evaluation or to the control group that does not receive it. Every effort is made to ensure that the intervention is given in a consistent way to all patients in the experimental group. At the analysis stage, the intervention is usually operationalized with the group to which patients were assigned. The analysis performed to demonstrate the effectiveness of the intervention involves comparing the mean values on the post-test outcomes between the experimental and control groups. The post-test outcomes are expected to show significant changes in the experimental group and no changes in the control group. Therefore, significant differences in the groups' mean post-test outcome values support the effectiveness of the intervention in producing the intended outcomes. This analysis and its subsequent results are based on the assumption that all participants have received the same level or dose of the intervention and exhibit a similar response to the intervention (Lipsey, 1990). These assumptions, however, may not be met in effectiveness research where the intervention is evaluated under the conditions of everyday practice. Under these conditions, each patient receives the intervention from a different nurse, resulting in variability of implementation. This variability is associated with increased variance in the post-test outcomes. Increased variance in the post-test outcomes reduces the power to detect significant effects, leading to the incorrect conclusion that the intervention is ineffective (Conrad & Conrad, 1994; Cook & Campbell, 1979; Kirchhoff & Dille, 1994). When the variability in the implementation of the intervention is ignored, we are unaware of the intervention dose required to produce the intended outcomes (Sidani & Braden, 1998).

Researchers are encouraged to clearly identify the essential activities that make up the intervention and the dose at which the intervention should be given, monitor the implementation of the intervention, and measure the intervention dose in order to avoid incorrect conclusions about the effectiveness of the intervention. Measurement of the dose involves quantifying the extent of patients' exposure to the intervention (Reid & Hanrahan, 1988). The method used to quantify the intervention

varies with the nature of the intervention. It may include the amount (i.e., the quantity of intervention activities), frequency (i.e., number of times the activities are done), and duration of the intervention the participants actually receive (Scott & Sechrest, 1989). The variable quantifying the intervention dose is used to represent the intervention in the statistical analysis. The relationship between the dose and post-test outcomes is examined to determine the effectiveness of the intervention. The use of this strategy for quantifying the intervention is illustrated in the following study. Sidani (1999) quantified a psycho-educational intervention by the number of group sessions attended and used this value as the independent variable in the analysis. The results indicated a significant relationship between the intervention dose and the outcome of cancer-related knowledge. Participants who attended all sessions showed most gain in knowledge. The latter finding illustrates the advantage of this strategy for representing the intervention, which is to increase the statistical power to detect significant intervention effect (Cook & Poole, 1982). It also informs nurses of the intervention dose required to produce the intended outcomes.

At the nursing care level, nursing is primarily represented with the structural variable of staff mix or worked nursing hours per case in nursing care effectiveness studies. Significant relationships between staff mix and outcomes are reported, indicating that the more registered nurses there are, the better the outcomes will be. Although important, these findings have some conceptual and practical limitations. The structural variable of staff mix or worked hours does not accurately represent the nature of nursing care. Nursing care entails the performance of activities reflective of expected role functions and the provision of services. Thus, the variable of staff mix or worked hours does not clearly identify what exactly nurses do. The observed relationships between staff mix and outcomes fall short of specifying the processes responsible for producing the favourable outcomes (Cho, 2001; Mitchell, Heinrich, Moritz, & Hinshaw, 1997). The relationships assume that care was delivered, but do not indicate the nature, quality, and safety of the care actually given to patients (Meyer & Massagli, 2001) that made a difference in the outcomes. It is therefore important to examine the processes of care that contribute to outcome achievement in order to validly support the effectiveness of nursing care and to determine which aspects of care are beneficial and which require improvement.

The importance of examining the processes of care when evaluating the effectiveness of nursing care is currently recognized, as evidenced by the propositions of models advanced by several scholars (e.g., Aiken, Sochalski, & Lake, 1997; Cho, 2001; Irvine Doran, Sidani, & McGillis Hall, 1998; Mitchell et al., 1998). The processes to be included in effec-

tiveness studies can be derived from these models. Examples of processes of care are the interventions delivered by nurses and the independent and interdependent nursing role functions. Once selected, the processes are operationalized with appropriate variables. The process variables are then measured using reliable and valid instruments. The relationships among structure, process, and outcome variables are tested using regression, path, or structural equation modelling (SEM) analysis. The SEM analysis has the advantage of testing the direct and indirect relationships simultaneously, while accounting for measurement error. For example, Irvine Doran et al. (2001) operationalized the nursing interdependent role functions by the communication pattern among members of the health-care team and examined its relationships with selected structure and outcome variables. The results indicated that a higher proportion of regulated staff on in-hospital units was associated with the perception of open, accurate, and timely communication. In turn, communication contributed to improvements in the patients' functional status. Results of effectiveness studies that examine the impact of nursing care processes are valuable in elucidating the mechanisms through which nursing makes a difference and the unique contribution of nursing to outcome achievement. The findings also point to aspects of care requiring change in order to continuously improve the quality of care provided to patients.

Incorporating Specific Outcomes

When evaluating nursing care effectiveness, researchers tend to select multiple generic outcomes such as mortality, morbidity, falls, number of re-admissions, discomfort, and satisfaction with care (e.g., Aiken et al., 1994; Lichtig, Knauf, & Milholland, 1999; Tourangeau et al., 2002). These generic outcomes represent the indirect benefits of care and are of primary interest to health-care payers and policy-makers (Raskin & Maklan, 1991). Nursing care effectiveness studies need to investigate the impact of nursing on more specific outcomes that represent the direct benefits expected as a result of nursing intervention or care.

The need to investigate specific outcomes has some implications for the selection of outcome variables and outcome measures. The selection of outcome variables is based on the nature of the care processes or interventions being evaluated, and on the anticipated direct and indirect effects. Therefore, the selected outcomes should be specific and sensitive enough to reflect the goal and effects of nursing care or interventions (Sidani & Braden, 1998; Twinn, 2001). The selection of outcomes in effectiveness studies should be guided by the process of care or intervention under evaluation. The outcomes are derived from the purpose of the intervention or process of care, its nature (i.e., the activities that make up

the process of care or intervention), and its anticipated direct and indirect effects. For example, the goal of in-hospital patient education is to provide patients with the knowledge necessary for appropriate self-care at home. Patient education often involves discussion with the nurse, demonstration of self-care strategies, and provision of written materials for future reference. Based on this description of the intervention, the expected direct outcomes include enhanced self-care knowledge and post-discharge performance of self-care strategies. If achieved, the two outcomes will contribute to the indirect effect of improved functioning. Similarly, coordination of patient care focuses on providing the care that patients need to manage their condition without delay. Coordination consists of communicating patients' needs to other members of the health-care team and ensuring that the appropriate interventions are given promptly. Thus, the direct outcomes expected of coordination of care are improved functioning, perception of being well cared for, and timely discharge. The indirect outcomes are a reduction in health services utilization and health-care costs. The direct outcomes mentioned in these examples are consistent with the nature and purpose of the intervention or process of care. Therefore, it is anticipated that the direct outcomes will be more responsive to the intervention or care under evaluation than the indirect outcomes. Achievement of the indirect outcomes is contingent on the production of the direct outcomes (Sidani & Braden). The results of the study by Irvine Doran, Sidani, Keatings, and Doidge (2002) support the point that nursing care has a direct and indirect impact on nursing-sensitive outcomes. The authors examined the effect of the independent and interdependent nursing functions on the patients' self-care ability, functional status, and mood. The independent function was operationalized with the patients' perception of the quality of nursing care, while the interdependent function was represented by communication among health-care providers and coordination of care. The independent and interdependent nursing functions had the strongest effect on the patients' reported self-care ability, which in turn affected the patients' functional status and mood.

Once the direct and indirect outcomes are specified, they should be measured. Instruments measuring outcomes must be reliable, valid, and sensitive to change (Stewart & Archbold, 1992). Unreliable measures introduce error, which reduces the statistical power to demonstrate effectiveness. Invalid measures do not capture the specific domains of the outcomes under study. Consequently, invalid measures are not capable of detecting the expected effects, leading to the erroneous conclusion that the care or intervention is not effective. Sensitivity to change is a psychometric property that is critical for detecting change in the outcomes

following the receipt of care or intervention. A change in outcome scores is the cornerstone for determining effectiveness.

The selection of outcome measures is done very carefully through a critical review of the instruments and relevant literature. The conceptual and operational definitions of the concept provided in the literature should be systematically compared with those of the outcome variables included in the effectiveness study. An instrument is selected if its content covers the specific indicators of the outcome variable in order to enhance the accuracy and consistency of the operationalization process (Lipsey, 1990; Sidani & Braden, 1998). For instance, self-care encompasses several domains such as symptom monitoring and management, taking medications, and engaging in health promotion behaviours. If self-care is an outcome used to evaluate the effectiveness of patient education, and if patient education does not instruct patients in health promotion, then the latter domain of self-care should not be measured, because it does not validly reflect the domains of the outcome variable of interest. Relevant literature is critically reviewed to determine the extent to which the instrument has demonstrated reliability, validity, and sensitivity. Doran (2003) synthesized the literature relevant to various nursing-sensitive outcomes and instruments measuring them.

Conclusions

The evaluation of the effectiveness of nursing care and interventions is essential for developing a sound knowledge base to guide the design, delivery, and continuous improvement of nursing services. In order to clearly identify the contribution of nursing within the health-care system, researchers must consider the conditions of everyday practice where multiple factors influence outcome achievement. The multiple factors encountered in clinical practice cannot merely be controlled or ignored in effectiveness research. This would lead to results that do not realistically reflect the complexity of everyday practice and would yield incorrect conclusions about the impact of nursing care or interventions. The results would not clearly delineate what it is that nurses do, what outcomes are affected by nursing care or intervention, and what specifically contributed to the favourable and unfavourable outcomes.

Research methods were presented to improve the design and conduct of effectiveness studies in three ways. First, the methods described can assist researchers to determine the influence of patient characteristics on outcome achievement. Second, the methods encourage researchers to clearly describe the processes of care or interventions, to monitor their implementation, and to examine the relationships between their implementation and outcomes. Third, strategies were discussed for incorporat-

ing outcomes that reflect the direct and indirect impact of nursing care or interventions in effectiveness research. The goal of these methodological suggestions is to generate a sound and valid knowledge base that provides an accurate and comprehensive picture of what nurses actually do and the difference they make in the lives of patients. Understanding which patients with which characteristics benefit from which aspect of nursing care or intervention, given at what level, is essential for guiding clinical decision-making. This process enables nurses to provide the most effective, efficient, and appropriate care to meet the patients' needs and preferences. Knowledge of what contributed to the favourable and unfavourable patient outcomes provides feedback for refining nursing care, thereby enhancing its quality.

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Designer's Corner

The Potential of Meta–synthesis for Nursing Care Effectiveness Research

Barbara L. Paterson and Sally Thorne

The need for an integration of nursing research findings within particular fields of study has received a great deal of attention in recent years (Sandelowski & Barroso, 2002). This need has arisen largely in response to the increasing numbers of individual research studies on similar phenomena and the lack of cumulative knowledge demonstrating how findings from these discrete studies might inform decisions on health–care delivery (Chalmers, Hedges, & Cooper, 2002). Recently, several nurse researchers have articulated strategies for synthesizing bodies of qualitative research (e.g., Estabrooks, Field, & Morse, 1994; Jensen & Allen, 1996; Paterson, Thorne, Canam, & Jillings, 2001; Sandelowski & Barroso). "Meta-synthesis" has become a generic term for the range of methodological approaches whereby the findings from several research studies are synthesized to produce a new and expanded understanding about the topic of inquiry.

In the following discussion, we will provide a brief synopsis of meta-synthesis research and identify several ways in which this research approach could contribute to an expanded understanding and perhaps new conceptualizations and theoretical underpinnings in the field of inquiry of nursing care effectiveness. Although some of what is published as meta–synthesis research is clearly intended to eventually contribute to nursing care effectiveness knowledge, we were unable to locate any studies in which that level of maturity had been achieved. Because of this, the examples that are provided herein represent other fields of inquiry.

A Synopsis of Meta-synthesis Research

Meta-synthesis is a method of reflecting on the processes and perspectives of a body of research to determine what we know and do not know about the phenomenon under study, as well as to suggest future direc-

tions for researchers, theoreticians, and clinicians. Our own experience with meta-synthesis began when we asked the question, "How can we determine what qualitative research studies have contributed to the body of knowledge in a particular field in such a way that it provides direction for clinical applications and for future research?" Our deliberations resulted in the development of the *meta-study*, a research method for synthesizing the findings, methodological decisions, and theoretical influences of a body of qualitative research (Paterson et al., 2001).

Barroso and colleagues (2003) identify the aim of meta-synthesis as creating "larger interpretive renderings of all of the studies examined in a target domain that remain faithful to the interpretive rendering in each particular study" (p. 154). In synthesizing qualitative research, expanded and new understandings of the phenomenon under study are generated. In contrast to a critical literature review that interprets the strengths and limitations of the individual studies, meta-synthesis exposes and interprets the directions of an entire body of research, advancing some perspectives and not others in the quest to understand various clinical phenomena. For example, in a meta-synthesis of research on living with diabetes (Paterson, Thorne, & Dewis, 1998), we determined that researchers had focused on the positive outcomes, to the exclusion of negative outcomes, of encouraging people with diabetes to assume an active role in self-care decisions.

Meta-synthesis is an interpretation of what the authors of primary research reports have constructed or interpreted in their research. Because most primary research studies are based on the assumption that a phenomenon is socially and historically created and shaped (Thorne, Paterson, et al., 2002), the conclusions of meta-synthesis researchers must be viewed as constructions of constructions rather than as facts or empirically derived truths. Meta-synthesis can offer new understandings and theory in a field of study but is open to the same challenges of interpretation, such as premature closure, that qualitative researchers face when they select research methods or theoretical frameworks or when they analyze data.

The Complexity of Human Health Outcomes

It is well recognized that the study of nursing care effectiveness is inherently challenged by the difficulties associated with attributing health outcomes to specific nursing interventions (Smith, Manderscheid, Flynn, & Steinwachs, 1997). Most of the health outcomes of concern to nursing are profoundly affected by a wide range of personal and contextual variables upon which nursing attempts to exert its influence (Harrison &

Eaton, 1999; Slade, 2002). Meta-synthesis can lead to new conceptualizations of nursing care effectiveness in specific care settings and with specific patient populations by extending the analysis beyond our traditional cause-and-effect interpretations.

Meta-synthesis researchers can interpret and compare the range of outcomes that various researchers identify across settings, patient populations, and data sets. In so doing, they can lend credibility to certain common conclusions while exposing the weaknesses and gaps in others (Thorne, Joachim, Paterson, & Canam, 2002). Kearney and Sullivan (2003) illustrate this potential in their synthesis of 14 studies on effecting lifestyle change. They discovered that popular theories of change fail to account for the dissonance that occurs between people's behaviours and values, needs, and goals, an element critical to prompting a desire for lifestyle change.

The Latent and Manifest Effects of Nursing Interventions

Meta-synthesis of qualitative research can also reveal how the dominant perspectives and methodologies within a field of study may have shaped our interpretations of nursing care effectiveness. For example, Slade (2002) discovered that research in the field of mental health effectiveness is essentially divided between a psychiatric perspective and a phenomenological perspective, neither fully accounting for health-care effectiveness. In a meta-synthesis of research on nurses' home visits, McNaughton (2000) determined that researchers had focused their attention on only some components of the home visiting role. For example, she notes that the body of research revealed little understanding of how factors such as social support might affect nurses' decisions concerning the frequency of home visits.

When meta-synthesis is used to critically reflect on the meaning underlying the aggregated findings of a body of research, it becomes possible to illuminate what researchers have missed by failing to study the effects of interventions "at the individual level of burden of care, and the macro-level of costs" (Slade, 2002, p. 748). Further, meta-synthesis opens up new possibilities by recognizing that a body of work may have systematic biases, such as a focus on the positive outcomes of nursing interventions to the exclusion of negative outcomes. Thus, meta-synthesis creates a framework within which we can extrapolate evidence from a body of research in order to articulate best practices and policy decisions (Forbes, 2003; Morse, Hutchinson, & Penrod, 1998; Morse, Penrod, & Hupcey, 2000).

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The Contribution of Meta–synthesis

Meta-synthesis of qualitative research is a formal mechanism for documenting, exploring, and explaining the subtle, nuanced, subjective elements of human health and illness, and the effect that nursing care has on them. On its own, quantitative evaluation of nursing care effectiveness always privileges discrete measures out of their holistic context, and can significantly misrepresent patients' subjective experiences. Individually, qualitative studies are inherently bound by their timing, context, and methodological orientation. Rarely can either approach produce sufficient "proof" to warrant significant change in the policy or care process. Qualitative meta-synthesis serves to elevate the findings of individual qualitative studies to the larger context of the interactional, dynamic element of nursing care effectiveness so that we can better understand its complex dimensions and decide how to grapple with it methodologically. It helps us to minimize the individual relational elements of our inquiries and to strengthen the legitimate thematic claims that cross time and context and stand up to critical scrutiny.

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Translating Research into Health Policy

Judith Shamian and Pat Griffin

Introduction

There is a growing emphasis on the need for transparent and evidence-based policy-making as a means of providing quality health care and to ensure accountability within our health-care system. This emphasis on translating research evidence into health policy is based on the simple assumption that policy is better when informed by research. It has been suggested that the potential contribution of research to policy development includes exposure to a wide range of validated policy options, evaluations of the success and failure of previous policies, the ability to identify relationships between seemingly independent factors such as the environment and health outcomes, and the ability to legitimize some policies while casting doubt on others (Hanney, Gonzalez-Block, Buxton, & Kogan, 2003).

With the increased investment in research in Canada, as well as the restructuring of our major research funding agencies, nurse scientists are better positioned now than ever before to engage in research. Along with these opportunities, however, come challenges that nurse scientists must face in ensuring that their research findings play a critical role in informing relevant decisions at all levels of the health-care system. As one of our leading nurse scientists, Linda O'Brien-Pallas, says, "In the world of research, completing the study is just the first step...making the research come alive and using it to build capacity for future science and scientists and to tell stories that capture policy-makers' attention and ultimately lead to policy changes, are what it is all about" (O'Brien-Pallas, 2003).

Health policy can be defined as "the principles, plans and strategies for action guiding the behaviour of organizations, institutions and professions involved in the field of health, as well as their consequences for the health care system" (West & Scott, 2000, p. 818). Health Canada's Office of Nursing Policy (ONP) was created in 1999 for the express purpose of bringing nursing evidence and perspectives into federal health policy-making while at the same time bringing an appreciation of health-policy implications to the lives of Canadian nurses in relation to their own education, practice, and research. In order for nurse scientists

to increase the impact of their research findings on health policy, it is necessary for them to understand the world in which policy-makers live. As we have indicated elsewhere (Shamian, Skelton-Green, & Villeneuve, 2003), this includes an understanding of the levers that may be used in effecting policy changes. These levers include good research evidence, effective research–policy linkages, an understanding of both change management and the policy cycle, and political acumen. In this article we will present an overview of how the ONP has used several of these levers, and will illustrate how current research findings that provide valuable information on nursing effectiveness are making their way into Canadian health policy.

High-Quality Research

Research utilization has been defined as "a specific kind of knowledge utilization whereby the knowledge has a research base to substantiate it. It is a complex process in which knowledge in the form of research is transformed from the findings of one or more studies into instrumental, conceptual or symbolic utilization" (Estabrooks, 2001). Research evidence used instrumentally is applied directly in decision-making in specific, concrete ways (e.g., changing a policy based on the findings of a study). Used conceptually, research provides new ways of approaching and interpreting the information available and can result in major shifts in thinking. The symbolic use of research evidence occurs when the research is used strategically to defend or justify the views of decision-makers by justifying and supporting their preferred position.

There is an emerging body of nursing effectiveness research evidence that demonstrates significant and dramatic relationships between, on the one hand, nurse-to-patient staffing ratios, the skill mix and experience of nursing staff, and existing nursing shortages, and, on the other hand, the resulting nurse and patient outcomes. More favourable staffing ratios and higher proportions of regulated staff have been associated with:

- lower mortality rates in neonates and adults
- lower re-admission rates
- lower rates of urinary tract infection, pneumonia, thrombosis, pulmonary compromise, and failure to rescue following major surgery
- shorter lengths of stay and lower rates of upper gastrointestinal bleeding and shock in medical patients
- lower fall rates, improved pain management, and higher levels of patient satisfaction.[1]

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[1] Aiken, Clarke, Sloane, Sochalski, & Silber (2002); Aiken, Sloane, & Sochalski (1998); Aiken, Smith, & Lake (1994); Blegen & Vaughn (1998); Buerhaus, Needleman, Mattke,

Along with the growing recognition of the importance of nurse staffing has come startling evidence regarding the worklife of nurses. Following a decade of downsizing and restructuring, it has become obvious that nurses are suffering work overload in more intense, complex environments. There is a relationship between stress and illness, and, according to the *National Population Health Survey,* nurses suffer the highest stress of all health workers (Sullivan, Kerr, & Ibrahim, 1999). It comes as no surprise, then, that 16 million hours of registered nurses' time are lost per year due to injury, illness, burnout, or disability. The RN rate of absenteeism (8.1%) is 80% higher than that for 47 other occupational groups (4.5%) and is the equivalent of 9,000 full-time nursing positions. Further, RNs in Canada work almost a quarter of a million hours of overtime per week — the equivalent of 7,000 full-time jobs per year. It is estimated that "the cost of overtime, absentee wages and replacement for RN absentees is between $962 million and $1.5 billion annually" (Wortsman & Lockhead, 2002). The result of policy decisions during the 1990s is clearly evident in the shortage of nurses and the shaken faith in the health-care system.

Although there is more than sufficient high-quality evidence indicating that the quality of nurses' worklife impacts on clinical as well as nurse outcomes, policy changes to improve work environments have been slow to occur. This supports the general notion that, although necessary, the existence and dissemination of relevant research are insufficient on their own to ensure the uptake and utilization of research findings. The challenge is to translate these findings into policy.

Understanding Policy-Making and the Policy Cycle

The ONP has adopted a framework for getting an issue on the policy agenda and moving that agenda towards action. The framework incorporates an eight-stage cycle with two phases. Phase 1, Getting to the Policy Agenda, is concerned with beliefs and values. It involves four conditions. First, it must embrace an issue that is consistent with the values and beliefs of society. Second, the issue must be problematic, be visible, be important to more than those immediately involved, and have some urgency attached. Third, there must be high-quality evidence to support

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& Stewart (2002); Doran et al. (2001); Edge, Kanter, Weigle, & Walsh (1994); Hunt & Hagen (1998); Kovner & Gergen (1998); Kovner, Johes, Zhan, & Basu (2002); McGillis Hall et al. (2001); Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky (2002); O'Brien-Pallas et al. (2001, 2002); Prescott (1993); Pronovost et al. (2001); Sovie & Jawad (2001); "Studies link RN staffing to patient safety" (1999); Tarnow-Mordi, Hau, Warden, & Shearer (2000); Tourangeau, Giovannetti, Tu, & Wood (2002); Tucker & UK Neonatal Staffing Study Group (2002); Weinburg, Lesense, Richards, & Pals (2002).

giving attention to the issue. Fourth, the public must be made aware of the issue and of the strategy to address it.

In order to make improving working conditions for nurses a means of improving patient and nurse outcomes, the ONP has assumed a role that incorporates a knowledge-brokering function between researchers and policy-makers. With regard to the stages involved in getting the issue to the policy agenda, it is known that nurses are trusted, vital components of a health-care system that is highly valued in our society. There is an urgent need to improve the current situation, and more than adequate evidence to support doing so. In order to make these facts known, however, the ONP had to target potentially supportive audiences and tailor the message to each. In doing so, it engaged key stakeholders through (1) face-to-face encounters such as regional visits, conference presentations and workshops, classes designed for university groups, and meeting with nurses at all levels on an ongoing basis; (2) extensive newspaper, television, and magazine coverage; (3) the production of publications such as regular e-mail newsletters from the ONP and articles published in professional/academic nursing and health journals; (4) arranged visits to Health Canada for visiting scholars and others to bring the issue directly to the table; and (5) the bringing together of people during a National Stakeholder Consultation Meeting. In other words, the ONP sought to turn a ripple effect into a tidal wave.

Phase 2, Moving into Action, starts with the fifth step of political engagement, which involves understanding the government structure and key players, targeting innovators and early adopters, establishing contact and customizing key messages, and maintaining regular contact. Sixth, interest groups with a particular stake in the issue need to be involved and can assist in spreading the key messages. Seventh, having gained interest and support from the public, the political arena, and interest groups, the issue is at the stage where it may be debated and policy formulated. It has been suggested that in order for an issue to survive at this stage, it must meet the following criteria: technical feasibility, acceptable value within the policy community, endurable cost, anticipated public assent, and a reasonable chance for support from elected officials (Kingdon, 1995). The eighth and final stage of moving into action is development of the actual policy, law, or regulation. Once this is accomplished, implementation and evaluation begin.

The move into action to improve workplaces for nurses, and thus improve patient outcomes, has begun, and is currently at the stage of deliberation and adoption. In response to concerns about a nursing shortage in the late 1990s, the Conference of Deputy Ministers and Ministers of Health instructed the Advisory Committee on Health Human Resources (whose Vice-Chair was the ONP's Executive

Director) to develop a strategy for nursing. The resulting Nursing Strategy for Canada was approved in October 2000 and included as its first recommendation the creation of a Canadian Nursing Advisory Committee (CNAC) whose primary goal would be to develop recommendations to improve the quality of nursing worklife. During the 1-year life span of the CNAC, it commissioned six research and information projects. The final report included 51 evidence-based recommendations. As a result, national and provincial and territorial governments have developed or are developing nursing strategies and creating working groups to advise on nursing issues.

Other national initiatives involving health human resource issues include the Nursing Occupational/Sector Study, which will provide information on the current and future nursing supply. In addition, the Canadian Council of Health Services Accreditation, in conjunction with the Canadian Nurses Association and the ONP, has developed a pilot program (to begin in 2004) to link hospital accreditation to healthy workplace indicators.

One of the most encouraging projects is the ONP's involvement, along with other key stakeholders, in developing guidelines for healthy workplaces. This will be accomplished by synthesizing seminal reports, developing consensus on priorities and interventions, validating these with administrators and staff, and, finally, producing practical fact sheets on how to create a healthy workplace.

Political Acumen

Since policy-making is less a rational act than a process of social influence, there is a need for the proficient use of political skill in effecting policy changes. "Policy windows open infrequently and do not stay open long" (Kingdon, 1995, p. 167). Therefore, in order to capitalize on these opportunities, we must become "insiders" within policy networks. In addition, it is important to understand which policy options have the greatest potential for adoption, based on political constraints, and when small incremental policy changes are the preferred option. The use of rhetoric, the art of persuasion, and the ability to relate to the media are also of prime importance.

The Health Accord Action Plan (September 2000) stressed accessibility to health-care services as a major goal. Framing the need for action as the need to increase the number of nurses (as a means of improving access) was consistent with the policy window at that time. The more recent Health Accord and Federal Budget (February 2003) also contain several windows of opportunity that must be capitalized upon. The first of these is the commitment of $90 million over 5 years to improving

health human resource planning and management, enhancing recruit-ment and retention, and developing interdisciplinary education. Next is the diagnostic and medical equipment fund — a 2-year, $1.5-billion fund to assist with the purchase of diagnostic and medical equipment, which, with input from the ONP, will include equipment to enhance the quality of patient care or the working conditions of health-care personnel, such as lifting devices. Finally, there is $50 million over 5 years devoted to the establishment of a national strategy for improving patient safety. It may be time to re-frame the need for healthy workplaces for nurses as a patient-safety issue.

Translating nursing research into policy is indeed "what it is all about."

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Translating Research into Practice: Implications for Organizations and Administrators

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Only some 500 years ago German artisan Johannes Guttenberg unleashed the information age with the invention of the printing press. We have come far from the first vacuum tube triode in 1906 to the first Intel micro processor in 1971 — to where we now talk in terabytes. Scientific knowledge is increasing exponentially; in 1997 Thomas Dodson suggested that over 600,000 articles are published every year in the biomedical literature, and that even the diligent and well-prepared clinician reading two articles a day would, at the end of a year, be 800,000 articles behind! (Dodson, 1997) Given the tremendous growth in knowledge and the rapid pace at which societies and their institutions around us are changing, our as yet unmet challenge of how to get the best available research knowledge into the hands of and used by clinicians in a timely and efficient manner seems increasingly urgent.

Since the 1997 call by the National Forum on Health for a culture of evidence-based decision-making, the term "evidence-based practice" has become a mantra for advocates of contemporary quality health-care systems. This despite the fact that we still know relatively little about the complex factors that influence *research use*. Since the creation of the Canadian Health Services Research Foundation in 1997 and the Canadian Institutes for Health Research in 2000 — the latter with a clear and unique mandate for knowledge translation written into its legislation — the knowledge translation agenda has accelerated at an ever increasing rate in Canada, moving across the country like a juggernaut. As we invest significant and increasing amounts in this country to get research from the "bench" to the "bedside," the question *How much attention have we focused on the role of organizations and senior administrators?* remains largely unasked.

This question is particularly relevant if considered in the context of a common oversight in the field of research utilization — treating research utilization and evidence-based practice as if they were separate from the broader body of research addressing healthy workplaces, quality workplaces, optimal practice environments, and so on. There have been important research and significant efforts undertaken to improve the environ-

ments in which nurses work — often cast within discussions of "magnet hospitals" (Aiken, Clarke, Sloane, & Sochalski, 2001; Aiken, Sloane, & Sochalski, 1998; Aiken, Smith, & Lake, 1994; Dopson, FitzGerald, Ferlie, Gabbay, & Locock, 2002; Estabrooks et al., 2002; Kramer & Schmalenberg, 1988a, 1988b; Lake, 2002; Laschniger, Shamian, & Thomson, 2001; Leveck & Jones, 1996; McGiliton & Pringle, 1999; Sleutel, 2000; Snyder-Halpern, Corcoran-Perry, & Narayan, 2001). If optimal practice environments result in improved patient outcomes, and if using research is really an important dimension of quality patient care, then research use, or, in today's jargon, evidence-based practice, will be an important feature of an optimal practice environment. The implication is that astute research-utilization investigators will work closely with health researchers interested in organizational, workplace, and related issues.

In this paper I will briefly describe (1) how the characteristics of individual clinicians influence research use, (2) what we know about how organizations influence research use, and (3) some of the emerging perspectives on communities of practice and the roles they may play. Finally, I will offer thoughts on how our findings relate to the increasingly important — and sometimes overlooked — role of organizations and nursing service administrators in creating and sustaining practice environments that enable clinicians to engage actively as members of a culture of evidence-based decision-making.

Individual Determinants

Historically, investigators have focused largely on individual predictors of research use such as age (Butler, 1995; Champion & Leach, 1989; Winter, 1990), education (Brett, 1987; Butler; Lacey, 1994; Parahoo, 1998, 1999), attitude (Bostrom & Suter, 1993; Champion & Leach, 1989; Coyle & Sokop, 1990; Estabrooks, 1999; Hatcher & Tranmer, 1997), employment status (Butler), years of experience (Butler; Champion & Leach; Kirchoff, 1982), clinical specialty (Bostrom & Suter; Michel & Sneed, 1995), journals read (Brett, 1987; Kirchoff; Rodgers, 2000a; Rutledge, Greene, Mooney, Nail, & Ropka, 1996), and continuing education (Brett, 1989; Coyle & Sokop; Estabrooks, 1999; Rodgers, 2000b). In a recent systematic review of individual determinants, Estabrooks, Floyd, Scott-Findlay, O'Leary, and Gushta (in press) identified six categories of individual predictors of research use: beliefs and attitudes, involvement in research activities, information seeking, education, professional characteristics, and other socio-economic factors. The most frequently assessed determinant, and the only one with a consistent pattern of significant and positive effect, was attitude towards research. Findings for other belief and attitudinal determinants were equivocal. Findings in the remaining categories

of determinants (involvement in research activities, information seeking, education, professional characteristics) were also equivocal, precluding any generalizations.

Recently, Profetto-McGrath and her group (Profetto-McGrath, Hesketh, Lang, & Estabrooks, 2003) found a relationship between research use and overall critical thinking dispositions. They found support for the belief that nurses who have attributes consistent with the ideal critical thinker, especially those who are open-minded, inquisitive, and systematic, are more likely to use research findings in their work. The findings of Profetto-McGrath et al. also suggest that open-mindedness is one of the most important dispositions for research utilization. Traits like curiosity and an affinity for seeking out new information have obvious links to the behaviours required to maintain standards of evidence-based practice. Without a desire to learn, nurses are unlikely to feel compelled to make time to read or discuss new research. Profetto-McGrath et al. concluded that critical thinking is central to notions of the nurse as sci-entific practitioner, and using research is an essential element in such a practice.

Strategies that we usually use to change individuals' behaviour focus naturally on the individual. Such strategies include trying to increase the reading activity of clinicians, teaching research critique and appraisal, and offering a variety of educational programs targeted at the individual. However, research on the sources of knowledge that nurses draw upon in their practice consistently reports that non-individual factors play a larger role in informing nurses' practice. The most common knowledge sources include individual patient information, personal experience in nursing, information acquired in nursing school, discussions with physi-cians, and discussions with fellow nurses. In contrast, professional journals of all types consistently rank among the least frequently accessed knowl-edge sources (Baessler et al., 1994; Estabrooks, 1998; Estabrooks, Chong, & Brigidear, 2003). Nurses' reports of their most commonly used knowl-edge sources suggest a work pattern that is highly relational and verbal, with high value placed on experiential learning. These findings, coupled with the awareness that individual behaviour is notoriously difficult to alter, have led us to focus on organizational influences in research utiliza-tion.

Organizational Determinants

Historical Trends

Historically, a number of factors thought to influence innovation adop-tion have been studied, but relatively few studies have specifically addressed the impact of these or related factors on research or knowledge

utilization. It is important to note that although investigators commonly treat innovation diffusion and adoption as synonymous with research utilization, these terms are not synonymous and may differ in ways that are poorly understood. Those organizational factors whose effect on innovation adoption have been traditionally studied (usually outside of nursing) include organizational complexity, centralization, size, presence of a research champion, traditionalism, organizational slack, time constraints, access to and amount of resources, professional autonomy, and organizational support.

Organizational *complexity,* consisting of functional differentiation, specialization, and professionalism (Damanpour, 1987), has been examined in organizational studies (Damanpour, 1996; Meyer & Goes, 1988; Mohr, 1969; Orlandi, 1986). In a meta-analysis, Damanpour (1991) demonstrated that these factors are generally positively associated with innovation diffusion in organizations.

Centralization of authority and decision-making is generally believed to inhibit innovative thinking and behaviour. It has been studied by, among others, Kimberley (1981), Kimberley and Evanisko (1981), and Moch and Morse (1977), who report that its presence exerts a negative influence on the adoption of innovations (Damanpour, 1991).

Organizational size is generally accepted as exerting a positive influence on innovation adoption — that is, the larger the organization, the more innovation adoption there will be (Damanpour, 1987; Germain, 1996; Kimberley & Evanisko, 1981; Meyer & Goes, 1988; Moch & Morse, 1977; Mohr, 1969; Zmud, 1984). In his study of health units, Mohr found that size probably reflects other variables such as presence of motivation, obstacles, and resources. Rogers (1995) concurred, suggesting that while size is probably frequently studied because it is easy to measure and relatively precise, investigators should seek to uncover its underlying structure rather than study this surrogate variable. In nursing, Brett (1987, 1989) found no relationship between size of the hospital and adoption of innovations by nurses, while Varcoe and Hilton (1995) found that organizational support and expectations about research use differed according to size.

Research shows that the presence of an innovation or research *champion* consistently exerts a positive influence on the adoption of innovations and the utilization of research (Chakrabarti, 1974; Howell & Higgins, 1990; Markham, Green, & Basu, 1991; Schon, 1963). As Wolfe (1994) points out, most of the studies have examined the presence of a champion but have not examined the relative importance of the champion in relation to organizational context, or included an examination of the influence of the power of the champion in that context.

Little has been written about *traditionalism,* although Downs and Mohr (1976) and Mohr (1969) mention traditionalism with the perspective that the less traditional an organization is, the more likely it is to innovate. Similarly, Scott and Bruce (1994), in discussing organizational climate, infer that more creative organizations (i.e., less traditional) facilitate more innovation. Finally, Rogers (1995) implies that innovative organizations are more creative and flexible (i.e., less traditional).

Organizational slack refers to uncommitted resources in the system (Damanpour, 1987, 1991; Fennell, 1984; Kimberley, 1981; Mohr, 1969; Rogers, 1995; Zaltman, Duncan, & Holbek, 1973). More innovation is believed to occur in organizations with high levels of slack. Nurses, however, have rarely felt the benefit of slack in the same way that employees in the private sector have. For one, structural constraints on the delivery of nursing care in hospitals and other health organizations have not resulted in slack being experienced at the point of care delivery.

In the nursing research literature, *lack of time* is consistently reported as having an adverse effect on research use (Funk, Champagne, Wiese, & Tornquist, 1991a; Humphris, Littlejohns, Victor, O'Halloran, & Peacock, 2000; Pettengill, Gillies, & Clark, 1994; Richens, 2001; Rizzuto, Bostrom, Newton Suter, & Chenitz, 1994; Rodgers, 1994, 2000b; Walczak, McGuire, Haisfield, & Beezley, 1994). Little has been written about the meaning of the concept of time to nurses generally or, more specifically, within the context of research utilization. Tydén (1996) discusses the complexity of time (or, more accurately, lack of time) as a variable in research utilization studies. Time is a dominant theme in the "barriers to research utilization" studies published by Funk and others (Dunn, Crichton, Roe, Seers, & Williams, 1997; Funk, Champagne, Tornquist, & Wiese, 1995; Funk, Champagne, Wiese, & Tornquist, 1991b; Funk et al., 1991a; Funk, Tornquist, & Champagne, 1995; Griffiths et al., 2001; Mayhew, 1993; Parahoo, 2000; Retsas, 2000). For nurses who participated as subjects in the cited studies, time *may* have meant designated on-the-job time, during which nurses are encouraged to and do engage in activities related to research and research utilization. Such time would ideally have certain characteristics: it would be "replaced" time, so that the nurse's patients receive the same level of care in her absence, thereby eliminating "activity or role conflict" for the nurse; it would be adequate to complete a discrete undertaking and so would most likely occur in segments of, for example, 4 or 8 hours; it would be "optimum time," so would probably occur on day or evening shifts rather than night shifts; and it would be facilitated time in that there would be guidance to ensure that the activity is carried out efficiently and results in a tangible product. However, these characteristics or attributes of time are speculative. In our own work we see "busyness," "interruptedness," and personal

energy levels as additional dimensions of this at best loosely conceived construct of time.

Access to research and resources, including findings, studies, libraries, and other sources, has also been consistently identified in nursing as important to the utilization of research (Champion & Leach, 1989; Funk et al., 1991a; Pettengill et al., 1994; Walczak et al., 1994). It seems self-evident that clinicians require access to research literature. This assumption is premised on beliefs such as "most research consumption will or should occur at work" and "research in published report form is relatively accessible (and usable)." Research sources other than the institutional paper-based library have not yet received much attention in the research utilization literature, although we can expect this situation to change as technologies such as the Internet make their way into workplaces. Aspects that have been examined include available research facilities and information availability at work (Clifford & Murray, 2001; Humphris et al., 2000; Royle, Blythe, Ciliska, & Ing, 2000); access to libraries, research expertise, and research committees (Rodgers, 2000b; Royle, Blythe, DiCenso, et al., 2000); attendance at conferences; and availability of research journal clubs (Hefferin, Horsley, & Ventura, 1982).

Professional autonomy has received some support as an organizational variable thought to influence nurses' research utilization behaviours (Funk et al., 1991a; Lacey, 1996; Rodgers, 1994; Walczak et al., 1994). The investigators are not clear as to whether they were addressing organizational, professional, and/or individual autonomy. The importance of professional autonomy may be underestimated in the empirical literature because it has been infrequently studied, and also in light of its importance in other, related, areas of work (Aiken, Clarke, Sloane, & Sochalski, 2001; Aiken, Clarke, Sloane, Sochalski, et al., 2001; Aiken & Patrician, 2000).

Finally*,* the following kinds of *support* have been identified as important to the use of research within the context of nurses' workplaces: peer support (Pettengill et al., 1994); support of nursing leaders/administration (Funk et al., 1991a; Hatcher & Tranmer, 1997; Pettengill et al.; Rodgers, 1994); support of other members of the health-care team such as physicians and physiotherapists (Lacey, 1994; Rodgers, 1994); a supportive infrastructure for nursing research (Champion & Leach, 1989; Rizzuto et al., 1994); and administrative support expressed both materially and in less tangible ways (Alcock, Carroll, & Goodman, 1990; Bostrom & Suter, 1993; Champion & Leach; Nelson, 1995).

Recent Trends

Recently we have seen an increasing focus on the importance of organizational context in facilitating knowledge utilization. Kitson and col-

leagues, for example, are working on an approach in the United Kingdom that addresses evidence and the organizational concepts of context and facilitation (Harvey et al., 2002; Kitson, Harvey, & McCormack, 1998).

In the context of civilian and military environments, we (http://www.ualberta.ca/~kusp) are comparing research utilization among nurses sampled from the two different organizational contexts (Estabrooks, Kenny, Adewale, Chong, & Mallidou, 2003). The predictors of research utilization in these contexts include beliefs and attitudes and organizationally focused items such as time to participate in research/projects, presence of a research champion, and number of in-services attended.

We are also examining organizational predictors using data from the Alberta arm of the International Study on Hospital Outcomes (Aiken, Clarke, Sloane, & Sochalski, 2001; Estabrooks et al., 2002; Sochalski, Estabrooks, & Humphrey, 1999). Initial findings show that variation in research utilization is mainly due to individual rather than organizational factors. The organization is, however, a significant predictor of research use — that is, the better the hospital environment, the greater the likelihood that nurses will use research findings in their practice — although it does not explain much of the variability. Although organizational determinants explain less of the variance in our model, they are statistically significant and may constitute the threshold needed before individual determinants can exert their more potent influence. Without the right environment, individual factors promoting research utilization may not be able to exert their influence. This implies that there is an interaction between organizational context and individual determinants of research utilization — a supportive organizational context enables individuals to increase their use of research in everyday practice.

Implications: Mixed Models

Concrete conclusions about the impact of organizational context are difficult to draw from existing research. However, findings to date suggest that nursing unit practices and organizational variables exert strong influences on research utilization. The organizational context may be critical in enabling individual determinants to exert what is a greater influence than previously thought. Hence, investigators in the field need to adopt a more "ecological approach" to studying the influences on research utilization — using mixed models that incorporate individual, unit, organizational, and regional levels of analysis.

Developing a greater focus on organizational models of research utilization is critically important because we know that organizations exert significant influences on both nurse and patient outcomes (Aiken, Clarke,

Sloane, Sochalski, & Silber, 2002; Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002). Investigators have treated research utilization as the dependent variable; however, we should explore research utilization as a predictor variable if we implicitly and explicitly assume that research use improves outcomes. If organizational context exerts significant influences on patient outcomes, it should also influence provider behaviour and hence research utilization, thereby holding considerable promise for advancing the research utilization field.

Communities of Practice

As we analyze the data within our research unit (www.ualberta. ca/~kusp)[1] and review the results of recent studies, we are becoming increasingly aware of the influence of groups and social interaction on how nurses conduct their practice. It is becoming increasingly obvious that very little nursing knowledge exists as discrete "bits" of knowledge that are written down and acquired by reading, and that organizations exist not as monolithic entities but as many small, often overlapping, "communities of practice." The idea of communities of practice originated in the field of education (Lave & Wenger, 1991; Wenger, 1998) and has not yet been applied intently in the knowledge utilization or organizational literature. It does, however, fit well with emerging trends in our data and with what nurses experience in their working lives. We are discovering that people do not learn in isolation and that the formation of community is essential for both the production and the transfer of knowledge. When applied to nursing, the theory of communities of practice suggests that nurses do not always act in prescribed or predictable ways. Instead, in order to get their jobs done, they interact with the people with whom they work and practise creatively with the tools and resources they have at hand. Through this negotiation of what does and does not work, of how to get around, nurses work together to create a community of practice (Lave & Wenger, p. 16). Newcomers to a unit have to learn and adapt to the way in which the people on the unit do things and, if successful, eventually become full members of this small community of practice. Increasingly, we are aware that nurses rely more on knowledge generated within their communities of practice than on knowledge generated by research. In particular, we have found that *social*

interactions and *experience* are the two most important sources of knowledge for nurses. A key concept in the idea of communities of practice is that learning is social. People learn *in* practice — they learn by doing and interacting with other people, who are also trying to do the same thing. For example, the preceptor/new nurse relationship can be a productive means by which to transfer both professional knowledge and unit-based norms. Lave and Wenger note that the process of moving into full membership involves "the learning of knowledgeable skills" (p. 29).

In this sense, communities of practice theory emphasizes the practice of nursing as a craft that can be learned only by watching and following those with more experience. Learning to be a "good" nurse involves some kind of apprenticeship. Apprenticeship is a social process implicitly involving the notion of someone with less knowledge following, watching, and, in a difficult-to-articulate way, absorbing the knowledge that he or she needs in order to become skilful — to have the "knowledgeable skills" discussed above.

Nursing as a Culture of Knowing: Epistemic Cultures

People learn in communities of practice, and knowledge is transferred within and among them. These communities are also the sites of *knowledge production*. In the course of their regular day-to-day practice, nurses not only *use* knowledge but also *produce* knowledge. It is becoming increasingly evident that in order to understand how nurses *use* knowledge we need to understand how they *produce* knowledge as a result of going about their everyday work. Our research has shown that most nursing units develop "unit-based norms." This is knowledge produced from negotiations among people on the unit as they go about their everyday practice. Unit-based knowledge is produced over time as people work together to solve problems and make things work. Further examination of how nurses make use of the mutually reinforcing sources of knowledge of interaction and experience may help us to understand nursing as an epistemic community (Knorr Cetina, 1999) — that is, nurses as a community of knowledge producers. How nurses produce their "own evidence" through sharing their experiences with their colleagues is an underdeveloped area. A deeper understanding of this process, and its relationship to knowledge utilization, would make an important contribution to our understanding of how knowledge is used in practice.

Conclusion

Four working hypotheses can be taken from this discussion. First, a threshold of positive organizational climate may be needed before indi-

vidual factors can exert their considerable influence on knowledge utilization. Without the right climate, individual factors promoting research utilization may not be realized. Second, personal experience and interactions are not given due recognition as sources of knowledge in the scientific and academic communities. Third, clinicians and students are both users and producers of knowledge. Fourth, knowledge is produced and travels readily within communities of practice. In light of these evolving hypotheses, one important question that emerges is *what are the implications for organizations and administrators*?

- Are administrators aware of the potential relationships among practice environments, research use, and patient and system outcomes?
- Have administrators taken seriously their role in providing optimal practice environments so that knowledge transfer and uptake can occur?
- How might administrators tap into the notions of communities of practice, "epistemic cultures," or the importance of social interaction in order to increase the use of research and practice-relevant knowledge in their settings?
- How might administrators and researchers work collaboratively to undertake a productive agenda in this arena?

The remarks in this paper make the field seem far more regular and coherent than it actually is. In actuality the field is complex, requiring its students to master the literatures of several disciplines scattered across numerous sources, none of whom cite each other. The field is rife with terminology and jargon, and its inhabitants interchange terms such as research utilization, knowledge utilization, innovation diffusion, technology transfer, evidence-based practice, knowledge translation, knowledge transfer, and knowledge mobilization as if they were all synonymous. While these terms do have a great deal in common, they are not in fact synonymous.

In Canada we have an almost unrestrained enthusiasm for evidence-based health care. If left unbridled, this enthusiasm will treat anything construed as being evidence-based as sacrosanct, as the *quality* terms were treated in the 1980s and early 1990s. The ever-present danger is that we will end up with unwieldy doctrine instead of thoughtful research and implementation agendas, agendas that enable us to examine whether, by using a perspective like "communities of practice," we might as researchers and administrators see clinicians as forming epistemic cultures that are central to the health of organizations and that, if understood, will facilitate research use in the practice setting.

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<u>*Happenings*</u>

Research on Interventions and Transitions: Montreal Research Group Created

Celeste Johnston, Céline Goulet, and Marc Pellerin

The health-care system everywhere in Canada is in a period of transformation. Recent economic, technological, and socio-demographic changes are seriously challenging the capacity of the health-care system to deliver timely and comprehensive services to the population. The shortage of health-care professionals, especially nurses, the growing number of acute clinical cases, the increasing proportion of patients being cared for in the community, and the introduction of new technologies all have a profound impact on the way that health services are being delivered.[1] In addition, nurses are challenged to stay abreast of the latest knowledge on best practices in nursing, which are evidence-based.

In order to have a nursing knowledge that is evidence-based, we need extensive research by nurse scientists who know both the substantive and the contextual positions of nursing in health care, as well as sophisticated methodologies. One of the main recommendations of recent reports by Canadian nursing leaders is that nursing move more into the area of research on interventions.[2]

While the need for more research is clearly acknowledged by policy-makers and key funding institutions, the nursing profession in Canada remains challenged by a serious shortage of nurse scientists. Less than 1%

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[1] For an overview of the state of health care in Canada, see Statistics Canada/Canadian Institute for Health Information (2003).

[2] See the proceedings of Pathfinding for Nursing Science in the 21st Century: Think Thank of Canadian Nurse Scientists and Policy-Makers, held October 3–4, 2002, in Toronto (http://www.hc-sc.gc.ca/onp-bpsi/english/current_research/index_e.html); and *Listening for direction: A national consultation on health services and policy issues*, summary report, June 2001, Canadian Health Services Research Foundation (http://www.chsrf.ca/).

of nurses in Canada hold a PhD and it is estimated that no more than 0.5% of nurses are doing research as a primary activity (Canadian Nurses Association, 2001). Even allowing for the fact that nursing research is an emerging field, the number of experienced scientists remains insufficient to have a sustained influence on the future of health care.

It is in this context, and largely in response to the issue of the shortage of nurse researchers available to study nursing interventions, that the Montreal Inter-university Group for Nursing Research/Groupe de recherche interuniversitaire en soins infirmiers de Montréal (GRISIM) was officially launched in April 2003, thanks to the support of Richard and Satoko Ingram of the Newton Foundation, the Fonds de la recherche en santé du Québec (FRSQ), the Ministère de la Santé et des Services Sociaux, and the Ministère des Finances, de l'Économie et de la Recherche. It is the first inter-university research entity in Canada devoted specifically to nursing interventions and transitions.

A project of McGill University and the Université de Montréal, GRISIM is committed to three goals: (1) to develop studies of nursing interventions and evaluate their impact on the health of populations, (2) to create and consolidate a critical mass of nurse scientists, and (3) to carry out knowledge transfer activities that will influence nursing practices, especially in clinical settings. Its long-term objectives are to become a centre of excellence in nursing research on interventions and to place Montreal in the vanguard of research in the field of nursing interventions.

Supporting Research on Nursing Interventions

Nursing interventions can be effective in promoting health, coping with illness, and decreasing symptoms, all of which can lead to decreased costs to the health-care system. For example, a meta-analysis by Heater, Becker, and Olson (1988) found that patients who receive research-based nursing interventions can expect 28% better outcomes than patients who receive standard nursing care. This is why GRISIM's main purpose is to support research-based activities or interventions that will be conducive to positive health outcomes. Following are some examples of innovative interventions that have been developed recently or are in the process of being developed: brief (20-minute) focused interventions with HIV patients to decrease anxiety and increase coping ability; maternal interventions to provide analgesia for critically ill infants; use of computers to teach newly diagnosed cancer patients how to cope with chemotherapy; interventions to foster intergenerational learning between adults and adolescent mothers; and interventions to promote coping among adoles-

cents with chronic illness as they move from pediatric to adult services (see Coté & Pepler, 2002; Johnston et al., in press; Loiselle, Edgar, & Batist, 2002–05).

Transition is a concept that is central to the discipline of nursing and one that will grow in importance in the coming years (Meleis, 1997; Schumacher & Meleis, 1994). Nurses are increasingly dealing with a number of patients who are undergoing a transition, defined as a passage from one state to another (Meleis). The majority of nurse-patient interactions begin with disequilibrium caused by a transition that is either developmental or illness-related (Schumacher & Meleis). Furthermore, persons undergoing a transition often have multiple contacts with health workers in different care settings — for example, in the hospital and in the community. A transition can have serious consequences for health status, depending on how a clinical issue is resolved — individually or collectively.

Today's health-care environment raises new concerns in that more and more people are acting as caregivers, especially in the context of an ageing population afflicted with acute and chronic illnesses. It is estimated that 80% of elder care in Canada is provided by family members (Patriquin, 1998), while nearly 90% of all cancer care in the United States is delivered in outpatient settings (National Cancer Institute, 2003). This situation places increased responsibility on the patient and family or on the community and requires a coordinated approach from within the health-care system. Considering the inability of existing mechanisms and approaches to adequately support the person or the family as they cope with a transition, we need to know which intervention models are best suited to particular types of transition and what impact they will have on patient outcomes.

There is a growing body of evidence with regard to the advantages of applying comprehensive nursing practices during a transition.[3] Transitional care models have already been tested, with favourable results, in various patient groups such as very low birthweight infants; elders with medical and surgical cardiac diagnoses; common diagnostic related groups (DRGs); and women undergoing unplanned caesarean birth, high-risk pregnancy, or hysterectomy. Various studies with these groups have found that comprehensive discharge planning and home follow-up by advanced-practice nurses can reduce the risk of multiple hospital re-

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[3] The National Institute of Nursing Research in the United States (National Institutes of Health) provides various documents (research briefs, news releases, etc.) with regard to research initiatives on advanced nursing practices and on transitional care (http://www.nih.gov/ninr).

admissions and significantly reduce post-discharge costs (Brooten et al., 2002; National Institute of Nursing Research, 2003; Naylor et al., 1999; York et al., 1997).

Recognizing the centrality of transitions to health, GRISIM will focus on three types of transition and the circumstances under which they occur: (1) developmental transitions, such as birth, death, and passage to adolescence, menopause, or old age; (2) health crises such as a heart attack, suicide attempt, or life-threatening diagnosis; and (3) transitions through health-care environments such as from critical care to "step-down" units or from pediatric to adult services. Projects will treat subjects as individuals, taking into account how they responded to the care they received and their living conditions.

Besides using the framework of transitions, and keeping in mind the importance of continuity and coherence of care, GRISIM will also focus on innovative and creative approaches. This includes generating ideas from the nursing literature and from the creative thinking of its own members and benchmarking from other domains such as educational technology and rehabilitation therapy.

Capitalizing on a Pool of Competencies

As capacity-building in nursing research is central to the mission of GRISIM, one of its objectives will be to consolidate the expertise of nurse scientists from McGill University and the Université de Montréal. The 22 current members of GRISIM are established researchers who have published extensively on a variety of issues in health care. They are well positioned to train a new generation of nurse researchers. Collaboration between the two institutions already exists: since 1993, a total of 24 students have graduated from the McGill University-Université de Montréal joint PhD program in nursing. A major goal is to attract the best candidates, who will constitute the next generation of researchers. With talented people recruited and brought together in one collaborative setting, the potential for greater research spin-offs in the long term is indisputable.

Multidisciplinary and national/international collaboration will take place within the GRISIM collaborative framework so that a better understanding can be reached regarding broad crosscutting issues related to nursing interventions and transition at patient, family, and population levels. Nursing interventions and transitions are also regarded as a public health issue beyond our national borders, especially in the context of global ageing of populations (see Raymond, 2003). Many cross-national comparative studies of health transitions are already being carried out in

order to better estimate the demand for care and support and to develop transitional-care models adapted for vulnerable clienteles, particularly elders and children.[4] GRISIM will team up with key investigators around the world in collaborative research initiatives that will monitor international trends with regard to transition issues and assess the impact on nursing practices.

Making Knowledge Beneficial

One of GRISIM's main concerns is to avoid conducting research in a vacuum. Indeed, efforts will be made to share findings and to elaborate dissemination strategies. Among other things, it will endeavour to have results published in prestigious journals and to have researchers attend international and multidisciplinary conferences. Since the transfer of evidence-based knowledge into practice is a priority, major partners will be encouraged to place research results in the clinical milieu, particularly teaching hospitals, university institutes, and university affiliates, and prove their added value. While the studies will be led by nurses, multidisciplinary collaborations will be sought in order to enrich the knowledge transfer. Finally, GRISIM will be instrumental in the training of students and will include students in research initiatives, especially with regard to the development of interventions. As students and young researchers will be the main actors in tomorrow's health-care system and will be producers of knowledge, they are an essential component of knowledge transfer initiatives.

Given that both universities are established authorities in their respective areas of research, the proposed goals are within our grasp. This new research group will join the ranks of other groups currently funded by the FRSQ. Subject to a favourable evaluation of its strategic plan and scientific program by an FRSQ peer review committee, GRISIM will receive $2 million to cover its work for the next 4 years, which will be a first step in reaching out to other donors and partners who believe in its mission and the added value of its work in the long term.

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[4] An example of such cross-national studies is the Comparative Study of Aging and Health in Asia (http://aha.psc.isr.umich.edu/description.html), a multi-country collaboration funded by the National Institute on Aging and based at the University of Michigan's Population Studies Center, the Michigan Center on the Demography of Aging, and the Population Council in New York.

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Book Review

Nursing-Sensitive Outcomes: State of the Science

Edited by Diane M. Doran
Toronto: Jones & Bartlett, 2003. 363 pp.
ISBN 0-7637-2287-1

Reviewed by Patricia Petryshen

Nursing-Sensitive Outcomes: State of the Science is a collection of commissioned chapters that advance our understanding of the effect of nursing care. The monitoring of nursing outcomes can be traced back to the time of Florence Nightingale. In 1885, Nightingale demonstrated how poor standards of care during the Crimean War resulted in high morbidity and mortality rates. Throughout the decades, nursing science has evolved from the study of care processes to research on the impact of care interventions. Randomized clinical trials have provided solid evidence on what is referred to as nursing-sensitive outcomes. This is the point at which the book begins.

The editor of *Nursing-Sensitive Outcomes*, Diane M. Doran, notes that "with the demand for professional and financial accountability, nurses are challenged to identify and delineate their contributions." This challenge comes from greater expectations on the part of the public and increased performance monitoring. Similarly, nurses want information on what is important to those who receive their care; they want to know that they are making a difference.

In the first chapter, contributors Dorothy Pringle and Diane Doran address the question "Why study outcomes?" Doran states that the book's contributors offer a synthesis and critical review of the state of the science on nursing-sensitive outcomes specific to nurses' scope of practice and interventions. The book provides solid evidence throughout demonstrating that nursing care does make a difference. The authors' comprehensive critiques of the studies and instruments used to measure outcomes (such as functional status, self-care, and symptom management) are summarized in a helpful table format. In her own chapter on functional status, Doran provides an in-depth review of the factors that influence activities of daily living. This sets the stage for Souraya Sidani's detailed chapter on self-care, a complex concept. Sidani notes that although there are a number of studies linking self-care to nursing, additional studies that evaluate this impact are essential.

In the chapter on symptom management, Sidani reviews the most highly self-reported outcome indicators: fatigue, nausea, vomiting, and dyspnea. She demonstrates that, if not managed, symptoms (particularly those in chronic illness) can have a devastating impact on the individual and the health-care system. In a chapter on pain as a symptom, Judy Watt-Watson makes a strong case for the inadequacy of pain management over the past 30 years, despite the fact that pain is the most common reason why individuals consult health professionals and the most common cause of disability and diminished quality of life.

Peggy White and Linda McGillis Hall's chapter on patient safety outcomes is timely and necessary. The authors provide a detailed review of the research on patient safety and adverse outcomes related to medication errors, nosocomial infections, patient falls, and pressure ulcers. Heather Laschinger and Joan Almost link patient safety to patient satisfaction. In doing so, they provide a comprehensive review of current instruments and the many challenges in measuring patient satisfaction. In the following chapter, McGillis Hall relates the concept of patient satisfaction to nurses' job satisfaction. She notes that while the association is an important one, it is the subject of limited research. McGillis Hall also provides a valuable analysis of the studies investigating the relationship between nurses' job satisfaction and patient outcomes.

The final chapter, Claire Mallette's contribution on minimum data sets, delineates the need for baseline data before and after nursing interventions. The author describes the need for computerized systems as well as data sets that are multidisciplinary and that cut across the continuum of care.

The editor of *Nursing-Sensitive Outcomes* states that the volume constitutes a valuable resource for graduate students, researchers, and policy-makers. The book will also be useful for administrators and nurse leaders seeking pertinent information on nursing-sensitive outcomes.

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Résumé

Attitudes des élèves-infirmières à l'égard des médecines douces et de leur utilisation : une étude exploratoire

Ron Joudrey et Jim Gough

Fondée sur les résultats d'un questionnaire à réponses libres, cette étude exploratoire a été entreprise dans le but de jauger les réactions et les attitudes des élèves-infirmières à l'égard des médecines douces, de même que leur degré d'acceptation. L'attitude des élèves-infirmières envers les médecines douces pourrait avoir une incidence sur le recours éventuel à ces thérapies dans le domaine de la santé. Les résultats de l'enquête confirment les conclusions d'autres études antérieures sur les infirmières diplômées : on a constaté au sein de l'échantillon d'élèves-infirmières un taux d'utilisation élevé des médecines douces et un degré relatif d'acceptation à l'égard de ces dernières.

Mots-clés : médecines douces, thérapies, élèves-infirmières, usage, attitudes, exploratoire

Student Nurses'
Use and Perceptions
of Alternative Medicine:
An Exploratory Study

Ron Joudrey and Jim Gough

This exploratory study is based on the results of an open-ended questionnaire administered to nursing students to assess their reactions to, use of, attitudes towards, and acceptance of alternative medicine. Acceptance of alternative therapies by nursing students could influence the future use of such therapies within health care. Consistent with the findings of studies with graduate nurses, high usage rates and qualified acceptance of alternative medicine were found among the sample of nursing students. Some reasons for this generally receptive attitude are presented, along with implications for future health-care practices.

Keywords: alternative medicine, allopathic medicine, therapies, student nurses, coding techniques, usage, perceptions, satisfaction, exploratory, effectiveness

Many health-care professionals such as nurses and doctors appear to be paying increasing attention to the eclectic variety of therapies labelled variously as natural, alternative, unconventional, or complementary. Authors such as Budrys (2001) and Clarke (2000) mention the difficulty of finding an agreed upon definition of alternative medicine. The Office of Alternative Medicine defines it as "an unrelated group of therapeutic practices that do not follow conventional biomedical explanations" (quoted in Goldstein, 2000, p. 285). In recent years, mainstream medical and nursing journals have devoted more coverage to this area. There have been several research studies on health-care professionals' use of and attitudes towards alternative medicine (hereinafter AM). See, for example, Hayes and Alexander (2000); King, Pettigrew, and Reed (1999); and Verhoef and Sutherland (1995). As well, Goldstein (2000) argues that conventional health-care providers are showing increasing interest in and acceptance of AM.

Much of this clinical and research interest follows on the heels of two landmark and widely cited studies by Eisenberg et al. (1993, 1998). These two studies, published in prestigious medical journals, indicate, among other things, increasingly high usage of AM among the American public. A Canadian study carried out by nurses (McClennon-Leong & Kerr,

1999) found high usage of AM by Canadians, though not as high as the rates found in the two investigations led by Eisenberg. Goldstein (2000) suggests that this interest in AM among health-care professionals is partly an attempt to catch up and respond to increasing use and acceptance of AM by the public. Eisenberg et al. (1993) found that many people who used AM did not tell their physicians they did so. This practice may account for much of nurses' and physicians' attention to AM, since independent use of such therapies by patients could have detrimental health effects (for example, it could cause adverse drug reactions). While there have been a number of studies investigating physicians' perceptions of AM, the focus of the present study was nurses' perceptions of AM.

Research interest in nurses and AM has been growing following the publication of Eisenberg's studies. King et al. (1999) investigated usage of and attitudes towards AM among registered nurses in the state of Ohio. They found generally favourable opinions about complementary therapies as well as high personal usage of some complementary therapies, although for many therapies the nurses' knowledge level was lower than their interest level. Hayes and Alexander (2000) explored knowledge and use of AM among nurse practitioners in the state of Connecticut. They found that 78% of the respondents considered themselves somewhat knowledgeable about alternative therapies, and 63% of these respondents had personal experience with AM. Tovey (1997) surveyed 1,000 alternative practitioners in the United Kingdom regarding their interactions with mainstream nurses and consulting physicians, and found nurses to be much more accepting of alternative practitioners than physicians.

A number of nursing authors (Hayes & Alexander, 2000; McClennon-Leong & Kerr, 1999; Melland & Clayburgh, 2000; Reed, Pettigrew, & King, 2000) cite the need for nurses to become more knowledgeable about alternative therapies and for the inclusion of AM in nursing curricula. In the words of King et al. (1999):

> If significantly more Americans are using some form of complementary therapy, it is imperative that nurses have a knowledge base of a variety of therapies in order to assist clients with decision making related to the therapies. (p. 250)

It is against this background that the present study was carried out. To the best of our knowledge, there have been no studies to date of student nurses' use and perceptions of AM. We feel it is important that student nurses be included in the category of health professionals since this new generation of practitioners will have a great influence on future health care, including the role played by AM.

The Study

Aims

The general aim of the study was to explore student nurses' perceptions of AM. The specific aims were to determine (1) the extent of AM use among student nurses, (2) the level of satisfaction with AM among student nurses, and (3) student nurses' beliefs about the effectiveness of AM.

Method

We developed an eight-item open-ended questionnaire. In this paper, we focus on the responses in two areas: (1) *Have you ever used any type of alternative medicine? If so, which type did you use? Were you satisfied with the results?* (2) *Describe your opinion(s) of the effectiveness of alternative medicine.*

Since this study could be described as exploratory rather than hypothesis-testing, we believed that the open-ended format would yield more in-depth data. Initially, face-to-face interviews were considered, but in the interests of time and a larger sample it was decided to use the open-ended questionnaire format.

Data Collection and Sampling

The setting for the research was a community college in central Alberta, Canada. This college has offered a nursing diploma program since the early 1970s and in 1990 began a 4-year collaborative baccalaureate degree program with the largest university in the province. In 1997 the nursing program was changed to a context-based learning paradigm, which in other settings is commonly known as problem-based learning. Students now have the option of training for either a diploma or a degree. At the time of the study, there were approximately 260 students enrolled in the 4-year program; the vast majority of the students were female.

After permission had been obtained from the college's Research Ethics Committee and the director of its nursing program, the questionnaires were distributed simultaneously to students in all four years of the program. The aim was to sample as many student nurses as possible in each year of the program. A convenience sample rather than a random sample was decided upon, since the intention was to generate qualitative data in a grounded theory fashion rather than to test a hypothesis (Strauss & Corbin, 1990).

Various nursing instructors distributed the questionnaires in their classes. Data collection took place between January and December 2000. In a few cases there was time for students to complete the questionnaire

in class but in most instances the students took it home to complete. As expected, return rates were lower in the latter situation. Out of a total of 250 questionnaires distributed, 89 were returned. This constitutes a response rate of 35.9%. A breakdown of completed surveys by year of study is as follows: first year, $n = 10$; second year, $n = 30$; third year, $n = 12$; fourth year, $n = 37$. Since not every respondent answered every question, there was variability in the numbers responding to each question.

In keeping with ethical concerns, a covering letter to the potential respondents stated that participation was voluntary and anonymous and was not a required component of their nursing program. This point was reiterated verbally when the questionnaires were distributed in order to prevent any possible perception of coercion with regard to the study.

Data Analysis

The data analysis can best be described as schema analysis (Ryan & Bernard, 2000). The two researchers independently compared and coded the responses in an effort to identify themes. The basic units of analysis were responses to the open-ended questions. Themes were developed in an inductive fashion by carefully reading the responses and examining them for repeated words and phrases. Responses that were judged similar and frequently mentioned formed the basis for the content of the themes. Since the study was exploratory and not theory driven, the derivation of themes from the data was judged appropriate. This is what Boyatzis (1998) describes as a data-driven approach to theme development. The two researchers then jointly developed categories as a way of capturing the themes. The categories are illustrated with direct quotes by the respondents in an effort to faithfully represent their discourse (Stryker, 1980), using coding techniques discussed by Berg (1998). Numbers following the direct quotes presented in the Findings indicate year of program and respondent number (e.g., 1-10 means the quote is by a first-year student whose completed questionnaire was assigned the number 10).

In addition to this qualitative analysis, a frequency analysis of various responses was undertaken. Because this was an exploratory study, we saw no need for further quantitative analysis. However, this is an area that other researchers may be interested in pursuing.

Initially we intended to do a year-by-year comparison of perceptions. However, after a careful reading of the data no major differences among students in different years of the program were detected, aside from the fact that some of the more senior students tended to provide more elaborate, detailed responses. Also, the relatively low response rate among first- and third-year students resulted in insufficient data for meaningful

comparison. Thus, the findings presented here are based on an analysis of the entire sample of 89 completed questionnaires.

Finally, in order to test the trustworthiness of our categories the technique of member checking was employed by means of a class discussion in a medical sociology course taught by one of the researchers. This class included several nursing students who had participated in the study. Feedback from these respondents indicated that the analysis was recognizable to participants in the study. Lincoln and Guba (1985) consider member checking to be the most effective technique for establishing the credibility of an analysis.

Findings

Use of Alternative Medicine by Student Nurses

Seventy-two respondents (81% of the sample) acknowledged using some type of AM, and 33 of these (45.8%) had used more than one type. The types of alternative therapies most commonly reported were, in order of frequency, herbal medicine (32), massage (27), and chiropractic (20).

When asked about satisfaction with AM, 66.6% of the respondents who had tried it indicated that they were fully satisfied and 14% indicated that they were somewhat satisfied. Three respondents were unsure about their satisfaction and two were not satisfied. The high satisfaction rates suggest that student nurses tend to see AM in a positive light.

Effectiveness of Alternative Medicine

When asked to describe their opinion of the effectiveness of AM, 79 of the respondents expressed an opinion. Our analysis of these responses yielded the following categories: *ineffective* ($n = 2$), *unsure about effectiveness* ($n = 19$), *unqualified belief in effectiveness* ($n = 13$), and *effective under certain conditions* ($n = 42$).

Ineffective. Only two respondents expressed a belief that AM is ineffective. One cited the "lack of control measures and standardization" regarding AM (2-13). The other said:

> *I am skeptical. These medicines are often promoted by people who adhere to some conspiracy theory with medical doctors and scientists as the villains. They are also generally sold by self-educated people who have no formal training in any kind of medicine. (1-10)*

Unsure about effectiveness. While 19 responses fell into this category, five respondents did not answer the question, possibly believing they were unable to give an informed opinion.

Six of the 19 respondents who were unsure stated that they had never used AM and therefore lacked the experience necessary to answer the

question, while 13 indicated that the absence of research and/or other information on AM made it difficult for them to form an opinion. Seven respondents pointed to the need for more research on effectiveness, with a few advising some caution until the results of such research become available.

Unqualified belief in effectiveness. Thirteen respondents wrote in generally positive terms about the effectiveness of AM, without any mention of factors limiting its effectiveness. In fact, six respondents noted the advantages of AM over conventional medicine, seeing it as more natural and holistic and producing fewer side effects:

> *Many forms of alternative medicine examine the person as a whole. By caring for the whole person the person is easier to bring back to health.* (2-19)

> *These therapies are shown to be more effective than traditional medicine by research. They should be utilized more often because many alternative therapies have less adverse effects.* (4-35)

> *Alternative medicine can be very effective with no side effects and no parts being cut out or cut off.* (3-23)

Effective under certain circumstances. This was by far the largest response category. Forty-two of the 79 respondents who expressed an opinion (53%) perceived AM to be effective but under certain circumstances. These fall into five categories: beliefs, proper use, effective in combination, type, and practitioners.

Beliefs. Those who stressed the influence of beliefs on the effectiveness of AM tended to perceive a direct relationship between beliefs and outcomes. One first-year student wrote:

> *If the person believes in the therapy it will be effective.* (1-5)

A fourth-year student was even more explicit about the primacy of the belief factor:

> *Alternative medicine works if and only if you believe it works.* (4-25)

Several respondents used expressions like "mind over matter." Interestingly, none of those who noted the importance of mindset mentioned any other causal factors in the effectiveness of AM. In a discussion of the effectiveness of allopathic therapies, we might expect causal relationships to be more physical in nature — for example, a drug's biochemical effect on the body. For 18 respondents, however, psychological causes alone seemed sufficient to indicate the effectiveness of AM. One possible explanation for this finding is that people may perceive causal connections differently when considering the two types of medicine.

Proper use. Those who related proper use to effectiveness did not elaborate on what "proper use" might entail, thus making it impossible for us to glean much detail from their responses. While there were references to "useful for prevention," "can treat certain ailments," and "good for minor ailments," the remaining seven responses in this category contained vague phrases such as "if appropriately used" or "if taken properly." Only one respondent hinted at the meaning of proper use:

> *It can be effective as long as it is used appropriately and is not over used like most medicine is.* (4-15)

We can hypothesize that, unlike in the case of beliefs, there is a tendency when considering proper use to apply the same criteria to alternative and allopathic medicines.

Effective in combination. There were six references to AM being effective when combined with traditional therapies. Two respondents stated that AM is somewhat effective but should not completely replace conventional medicine. There was also mention of the importance of medical monitoring. The benefit of combining alternative and conventional therapies was clearly suggested, as in the following comments by two fourth-year students:

> *It's alright to use alternative medicine in conjunction with mainstream medicine. I don't feel that alternative medicine could be used independently.* (4-8)

> *It can be very effective but…needs to be used in combination with traditional medicine.* (2-27)

Type. Four respondents looked at effectiveness in specific rather than general terms. They believed that some types of AM might be effective while others are clearly not. Only three types of therapy were specifically mentioned as being effective — group therapy, chiropractic, and muscle therapy. One fourth-year student stated:

> *Chiropractic and muscle therapy are very valuable in my opinion but most of the other stuff is a waste of time.* (4-10)

Practitioners. The general opinion of four respondents was that AM can be effective when administered by skilled, qualified practitioners. The following two comments capture this perception:

> *I believe it probably could be effective but it needs to be administered by a well trained person (just like [in] nursing).* (2-10)

Very effective but I am a bit cautious of credentials of the workers. Are they certified? Accountable? (4-7)

Discussion

This exploratory study of student nurses' use and perceptions of alternative medicine has identified patterns and themes that may well contribute to the discussion on the attitudes of health-care professionals towards AM. We believe that a focus on student nurses is justified since the perceptions of the new generation of health-care practitioners are likely to influence the future direction of health care. The receptiveness of nursing apprentices to AM may play a role in dictating how and to what extent AM will interface with allopathic medicine in the future. How personal use of and attitudes towards AM affect nurses' relations with clients, however, remains an empirical question. In their study with nurse practitioners, Hayes and Alexander (2000) found high usage rates of AM, with two thirds of participants having "recommended or referred clients for one or more alternative modalities" (p. 52). The present findings suggest that personal use and application in practice may be correlated, although the actual link requires further examination. A valuable topic for future research would be specifically how nurses' personal use of and attitudes towards AM affect their advice and recommendations to clients.

Responses to questions in the first research area, AM usage, reveal that most of the sample had used one or more types of AM. These fairly high usage rates correspond with those found in studies with graduate nurses (e.g., King et al., 1999). The use of a small, non-random sample in the present investigation obviously precludes detailed comparison with the results of studies that used much larger samples and different methodologies. Nevertheless, there is some indication that student nurses' willingness to try AM matches that of practising nurses. This correspondence could be tested rigorously in future studies that use larger representative samples. High rates of AM usage by practising and student nurses might be partly related to nurses being predominantly female. In a Canadian study, McClennon-Leong and Kerr (1999) found that AM usage rates were highest among women 24 to 39 years of age. What is most interesting in terms of the present study, however, is the fact that high AM usage is one indicator of receptiveness to unconventional medicine. The fact that a majority of the respondents who had tried AM were either fully or somewhat satisfied with the results is a further sign of receptiveness to at least some unconventional therapies.

The most common alternative therapies used by the respondents were herbal medicine, massage, and chiropractic. This result fits with the findings reported by Eisenberg et al. (1998) in their well-known study of

AM usage among the general public. It is likely that herbal, massage, and chiropractic therapies are among the better known and more accessible therapies (as opposed to Ayurveda therapy, Colon Hydro therapy, and other, more esoteric treatments) and therefore more widely used. Some unconventional therapies may have more legitimacy and acceptance than others. Hence caution must be exercised. It should not be assumed that endorsement of some forms of AM implies wholesale acceptance of all unconventional therapies. It is worthy of note that some studies of AM usage have employed a checklist closed-ended format to investigate which therapies are most widely used (e.g., Eisenberg et al., 1998; King et al., 1999), whereas in the present study we used an open-ended question to elicit such information. An advantage of the latter technique is that it allows researchers to capture how respondents define and give meaning to phenomena and thus more faithfully represents the respondents' worldview, whereas the choice format risks imposing the researchers' definitions on the participants. We were interested in finding out how our study population conceptualized "alternative medicine."

The second research area yielded information on respondents' views concerning the effectiveness of AM. A significant number of respondents (55, or 72%) held positive attitudes about its effectiveness. A minority of those in this category held an unqualified belief in the effectiveness of AM, whereas most believed that it is effective under certain conditions. A total of 19 respondents were unsure about the effectiveness of AM and only two suggested that it is ineffective. We interpret these findings as indicating generally positive attitudes towards AM.

In addition to showing generally receptive attitudes towards AM, the data suggest that many student nurses approach the subject somewhat cautiously and critically. Those in the unsure category ($n = 19$) seemed to have adopted a "wait and see" attitude regarding effectiveness, whereas 42 respondents clearly specified the conditions under which AM would be effective, mentioning, for example, the importance of believing in the therapies, proper use of the therapies, use in conjunction with conventional approaches, and practitioner qualifications. These findings show a tendency for student nurses to apply critical thinking skills when it comes to evaluating AM. The source of these critical thinking skills remains unknown. It could be the nursing curriculum of this particular program, which includes a philosophy course. However, if critical thinking skills were curriculum-driven one would expect third- and fourth-year students to exhibit more of these skills than first- and second-year students, and, as noted above, there were no discernible differences in responses among students in different years of the program. It is also possible that those entering post-secondary studies have already developed some ability to think critically. In addition, nursing students in this par-

ticular program take a number of non-nursing courses that encourage critical thinking.

Overall, the findings from this initial, exploratory study show a generally receptive attitude towards the use of alternative modalities. Other researchers, such as King et al. (1999), have also found that nurses tend to hold favourable opinions about alternative or complementary therapies. We offer some reasons for these receptive attitudes among nursing students:

A move away from hospital-based nursing education. Nursing education programs have increasingly moved out of hospital settings into universities and colleges. Education that is solely hospital-based may serve to socialize students to focus exclusively on the allopathic model. In the setting in which the present study was carried out, nursing students begin their practical training in the community. This in itself may promote open-mindedness to other treatment options, partly because trainees in community settings are likely to encounter clients who rely on a variety of treatment options.

Introduction of AM into the nursing curriculum. There has been a call for nursing educators to incorporate AM into nursing curricula (see Melland & Clayburgh, 2000; Reed et al., 2000). Thus modern-day nursing students may be more knowledgeable and accepting of such therapies than their predecessors. The setting in which the present study was carried out has, in recent years, been including alternative therapies as part of the nursing curriculum.

Greater awareness and acceptance of AM among the public. Broader definitions of health, such as that proposed by the World Health Organization (cited in Matcha, 2000, p. 108), have been circulating for some time. Many members of the public have been exposed to these definitions, regardless of their level of education. Also, because of the increasing media attention to AM, today's general public may be familiar and comfortable with it (Goldstein, 2000). Even before they enter nursing school, therefore, nursing students will have formed opinions about AM and will be familiar with some of the more popular therapies.

Self-selection. A reviewer of an early draft of this paper suggested that students who enter nursing education might be self-selected. They might be inclined to accept broader definitions of health that allow for the use of alternative therapies. As Goldstein (2000) suggests, holistic health care may be conducive to acceptance of some alternative therapies. Whether this self-selection process holds true, however, remains an empirical question. The attitudes of students before they enter nursing education may be another topic worthy of investigation.

Limitations and Clinical Implications

It is our hope that this study will contribute to the literature on nurses' relationship to alternative medicine. However, we caution against extrapolating beyond the data since this investigation was exploratory, was confined to one setting, and used purposive rather than representative sampling. The findings should ultimately be rigorously tested with a larger, more representative sample of nursing students from a broader geographical area. The lower-than-expected response rate made it difficult for us to conduct year-by-year comparisons. Future studies might use larger samples that permit such comparison, since attitudes might change with more exposure and training. The link between personal use or attitudes and professional practices also needs further investigation. Notwithstanding these limitations, however, this study has gone some way towards addressing the research lacunae in student nurses' attitudes regarding AM.

The finding that some student nurses have favourable, yet critical, attitudes towards AM, whatever their source, could be explicitly addressed in nursing curricula as a basis for increasing and refining knowledge of these alternative modalities. Extant research findings on which therapies may be useful and which may be harmful should be addressed in nursing education. It will undoubtedly be more beneficial to future clients to build upon the existing critical stance towards AM than to accept such therapies wholesale.

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Résumé

L'intégration de la dimension spirituelle au programme de baccalauréat en sciences infirmièrs des universités canadiennes

Joanne K. Olson, Pauline Paul, Lillian Douglass, Margaret B. Clark, Jane Simington, et Nancy Goddard

Le but de cette étude était d'identifier à quel point le contenu sur la dimension spirituelle est inclue dans le curriculum des programmes de baccalauréat de base en sciences infirmières des universités canadiennes. Un devis exploratoire descriptif a été utilisé afin d'obtenir des données des membres du corps professoral des écoles de sciences infirmières universitaires canadiennes. Dix-huit (62 %) des 29 écoles éligibles ont participé. Les résultats indiquent qu'il y a confusion conceptuelle et que la dimension spirituelle est rarement définie ou incorporée dans les objècts des programmes d'étude. Cependant, elle est plus présente dans les objectifs de cours, et des méthodes créatives sont utilisées pour en traiter. Son évaluation est sporadique et limitée, et plus d'attention pourrait être portée sur cette dimension.

Mots clés : programme de sciences infirmières, spiritualité

Addressing the Spiritual Dimension in Canadian Undergraduate Nursing Education

Joanne K. Olson, Pauline Paul, Lillian Douglass, Margaret B. Clark, Jane Simington, and Nancy Goddard

The purpose of this study was to identify the extent to which the spiritual dimension is addressed in Canadian university undergraduate nursing curricula. An exploratory descriptive design was used to gather data from faculty members at Canadian university schools of nursing. Eighteen (62%) of the 29 eligible schools participated. The findings indicate that conceptual confusion exists and that the spiritual dimension is rarely defined or included in curricular objectives. However, they also indicate that the spiritual dimension is more frequently evident in course objectives and that a number of creative methods are used to address it. Testing in this area is sporadic and limited. The results indicate that greater attention could be given to this dimension.

Keywords: nursing education, spirituality

Human spirituality has long been a subject of philosophical speculation and discourse. It is a well-recognized and generally accepted phenomenon in virtually all known cultural and social systems, past and present. Few would deny its existence as a dimension of human nature or fail to acknowledge its pervasive influence on human thought, behaviour, and perceptions about well-being. Although the relationship between spirituality and health remains unclear, the recent resurgence of interest in complementary sources of healing and holistic health practices is causing increased interest in the nature of this link. At the same time, ongoing concern about health care makes it imperative that potential sources of healing, including those that have been neglected or considered to be beyond modern health practices, be investigated and evaluated. Although the spiritual dimension is commonly identified as an essential component of nursing care, the literature indicates that it is not adequately or appropriately addressed in nursing education and practice.

The purpose of this national study was to identify the extent to which the spiritual dimension is addressed in Canadian university undergraduate nursing curricula and evaluated in both official languages by the Canadian Nurses Association (1995). The study was guided by two research questions: (1) *To what extent is the spiritual dimension being addressed in university basic undergraduate nursing programs?* (2) *To what extent does the*

Canadian Nurses Association Testing Services examine new graduates' knowledge of and ability to address the spiritual dimension? In this paper we report on the findings relating to the first question.

Theoretical Foundation

The theoretical foundation for this study is the relationship among the concepts of human nature, spirituality, the spiritual dimension, nursing practice, and nursing education. The nature of human beings is a concern of the discipline of nursing. Historically, nursing developed around a tradition of healing and wholeness (Barnum, 1996; Donahue, 1985) in which human beings are acknowledged to comprise spiritual as well as biological, psychological, and sociological dimensions. To achieve optimal health, all aspects of human nature, including the spiritual dimension, must be considered and nurtured. In order to provide holistic care to clients, nursing students need to learn about the spiritual dimension and be tested on their knowledge in this regard.

Literature Review

Definitions of Spirituality and Related Terminology in the Nursing Literature

In the nursing literature, the terms *spirit, spiritual,* and *spirituality* are often used interchangeably. The word *spirit* comes from Hebrew, Greek, and Latin words for breath, suggesting that spirit is essential for life (Price, Stevens, & LaBarre, 1995). While there is no one authoritative definition of spirituality, defining themes emerge in the literature. Researchers including Goddard (1995), Hungelmann, Kenkel-Rossi, Klassen, and Stollenwerk (1985), Karns (1991), and Macrae (1995) view it as a *harmonious interconnectedness to God, self, others, and nature.* Burkhardt and Nagai-Jacobson (2002) suggest that spirituality is ultimately about *relationships,* while Clark (2000) adds that it is *an experience of being in relationship.* Burkhardt and Nagai-Jacobson (1994), Byrne (1985), Haase, Britt, Coward, Leidy, and Penn (1992), Keegan (1994), and others describe spirituality as *the core of an individual: an animating, creative and unifying force.* Reed (1991) and Taylor and Ferszt (1990) describe it in terms of *having a sense of purpose and life direction,* Mansen (1993) and Salladay and McDonell (1989) as a *developmental process.*

It is important to distinguish spirituality and the spiritual dimension of human beings from the concept of religion (Emblen, 1992). The word *religion* has its roots in the idea of binding things together (Bowker, 1997). Religion often functions to link the human spiritual dimension with the concept of spirit as larger than the human spirit. This more transcendent

appreciation of spirit can have implications for how life is lived in relationship with that which transcends one's own spirit. This spiritual relationship is often described as spirituality. It can be said that all religions include elements of spirituality, but religion is not the only way to understand or access spirituality. A person who is described as a spiritual person might not necessarily be a religious person, and vice versa (Nolan & Crawford, 1997).

The Spiritual Dimension of Human Beings

In a recent publication, Burkhardt and Nagai-Jacobson (2002) discuss the universal nature of spirituality: "By virtue of being human, all people are spiritual, regardless of whether or how they participate in religious observation" (p. xiii). It follows that all humans possess a spiritual dimension. Some authors describe the spiritual dimension as the mainstream of life (Dickinson, 1975; Stoll, 1979; Yura & Walsh, 1982), such that the absence of spiritual well-being can negatively affect the other dimensions. Though the concept of spiritual dimension seems vague, difficult to define, and complex, it has been regarded as the central, unifying dimension of an individual (Farran, 1989) and as the central "artery" that permeates, energizes, and enlivens all other dimensions (Brewer, 1979). For this study, the spiritual dimension is defined as *the animating energy that forms the core of all human beings; the real person; the active, living, and continually unfolding core of the individual; the part that does not die, that provides meaning and purpose in life, that transcends, permeates, and influences all other human dimensions: physical, psychological, and social. The spiritual dimension is expressed through relationship with God (however defined by the individual), self, others, and nature.*

The Spiritual Dimension in Nursing Practice

Researchers have examined clients' perspectives of spiritual needs and spiritual care (Martin, Borrows, & Pomillo, 1976; Simsen, 1985; Stallwood-Hess, 1969). Even though clients believe that nurses have a responsibility to address the spiritual aspects of their care, they indicate that nurses do not consistently respond to these needs (Dettmore, 1984; Fish & Shelley, 1983; Highfield, 1992; Reed, 1991; Soderstrom & Martinson, 1987). Clients report that in times of illness they often experience feelings of fear, doubt, and loneliness and express concerns about the meaning and purpose of life and their relationship to God and others (Martin et al.; Stallwood-Hess). They consider their spiritual needs of great importance (Simsen) and report a desire for the following nursing interventions: listening, "being there," and referral to clergy when appropriate (Kealy, 1974; Martin et al.; Stallwood-Hess).

Research findings indicate that nurses are aware that clients have spiritual needs. Further, many nurses believe it is in their scope of practice to respond to these needs. Waugh (1992) and Piles (1986), respectively, found that 94.4% and 87.6% of their respondents believed that nurses, in addition to clergy, should participate in spiritual care. It seems, however, that nurses have limited knowledge about how to respond to spiritual needs and therefore a limited ability to help clients in this area (Highfield & Cason, 1983; Kealy, 1974; Piles, 1986; Waugh). Conversely, when nurses unknowingly address the spiritual dimension, clients report a profound and sustained healing effect (Hood Morris, 1995).

While nurses appreciate and acknowledge the importance of spiritual care in their practice, it has been suggested that they neglect this area of care, for several reasons. They admit to confusion about the nature of spiritual care (Price et al., 1995) and hesitancy about introducing the "non-scientific," spiritual realm into science-based nursing care (Price et al.) and believe they lack the knowledge necessary to address the spiritual dimension (Chadwick, 1973; Piles, 1986).

The Spiritual Dimension in Nursing Education

Although there is increasing literature focusing on the spiritual aspects of nursing, limited research attention has been given to the spiritual dimension in nursing education. In examining 120 randomly selected undergraduate programs accredited by the National League for Nursing in the United States, Piles (1980, 1986) found the spiritual dimension to be minimally addressed. In a study conducted with undergraduate nursing students in Hawaii, Simington (1996) found that students with higher levels of spiritual well-being were more willing than those with lower levels to care for elderly patients. Hitchens (1988) discovered that students tended to project themes from their own faith, values, and life experiences onto patient-care situations. Further, she found that critical life experiences, rather than length of nursing practice, was the main factor in determining how students planned care for the spiritual dimension. There appear to be no studies examining how the spiritual dimension is addressed in Canadian nursing education.

Method

An exploratory descriptive design was used to gather data from undergraduate faculty representatives of Canadian university schools of nursing. A questionnaire[1] was designed to address the first research question: *To what extent is the spiritual dimension being addressed in Canadian uni-*

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[1] The questionnaire developed for this study is available from the authors upon request.

versity basic undergraduate nursing programs? Specific open-ended questions focused on how the spiritual dimension is conceptualized, integrated, and evaluated in curricula. A panel of nurse educators established content validity. Pilot testing was conducted at one of the participating universities. No revisions were required and the data of the pilot test became part of the overall data. The questionnaire was then translated from English to French by a francophone co-investigator.

Procedure

After ethical approval had been received from the Faculty of Nursing Ethics Review Committee, all Canadian universities that offered basic baccalaureate nursing programs and held membership in the Canadian Association of University Schools of Nursing were invited to participate. All correspondence and study materials were in the language(s) of instruction of the university. Each dean or director was sent a letter introducing the study and asking that two faculty contacts for each year of their program be identified. Follow-up phone calls were made to obtain the names of the faculty contacts. Once names were confirmed, one contact for each year of the program was randomly selected. These faculty members became the research sample and were sent an information letter and questionnaire. The letter asked participants to complete the questionnaire in collaboration with colleagues teaching in the same year of the program. Although discussion groups were suggested as an appropriate method for obtaining data, each participant was given flexibility in determining how to solicit input from colleagues. Follow-up reminders were sent by e-mail.

Data Analysis

To facilitate combined data analysis of the questionnaire, French-language responses were translated into English by one francophone member of the research team and then translated back into French by another. The results were discussed by the two francophone members to ensure agreement on the English translation to be used by the team.

   Using descriptive statistics and content analysis, data were analyzed to identify trends in the extent to which the spiritual dimension is addressed in nursing curricula. Four researchers participated in this process in order to allow for full discussion and broad consensus.

Findings

Participation Rate

Eighteen of the 29 schools invited to participate (62%) returned completed questionnaires. Thirty-nine individual faculty members partici-

pated in the survey. Thirty-one questionnaires were completed in English and eight in French. The participants reported gathering data from 130 other teachers of basic baccalaureate nursing courses at the invited schools.

Regional participation included seven out of 10 schools (70%) in the western provinces (British Columbia, Alberta, Saskatchewan, and Manitoba), seven out of 13 schools (54%) in the central provinces (Ontario and Quebec), and four out of six schools (67%) in the Atlantic provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador). The participation rate by language was as follows: two of the three schools using only French as the language of instruction, 15 of the 24 schools using only English as the language of instruction, and one of the two schools using both English and French as the language of instruction.

Conceptualization of the Spiritual Dimension

Of the 39 respondents, 26 (66.66%) stated that the term *spiritual dimension* was not defined in their education program. Of these, four indicated that students and faculty were encouraged to personally define the spiritual dimension. For example, one respondent stated:

> *Students learn that there are many definitions. We do not purport that there is only one definition. The documents describing the philosophy of the nursing school refer to wholeness, a body-mind-spirit unity. Students are introduced to various definitions of health in their nursing courses. Most of these definitions integrate a body/mind/spirit; a few integrate body/mind/spirit/environment. Our program is based on viewing the "lived experiences" of individuals, families etc. in a holistic manner. Therefore the spiritual dimension is whatever the person states it is. It is not defined in one curriculum guide.*

Thirteen respondents (33.33%) indicated that their school had a definition of the spiritual dimension. Of these, two said the definition was similar to the study definition, three provided definitions with no reference to an author or theorist, and eight used definitions from the literature — Neuman's (1989) definition (two respondents), a definition influenced by Watson (1988) (one respondent), and definitions by other authors not considered nursing theorists (five respondents).

Three respondents indicated that their school's definition of the spiritual dimension differed from the study definition. One wrote:

> *Your definition places greater emphasis on the spiritual nature of the human being — ours seems to be more about the individual's comprehension of spirituality for and within themselves.*

The remaining two respondents indicated that their definition did not include the idea of transcendence nor assume that the spiritual dimension permeates and influences all other dimensions.

The data reveal three significant findings pertaining to conceptualizion of the spiritual dimension. First, opinions varied on the importance of addressing the spiritual dimension. For example, one respondent wrote:

> *I believe there is some inconsistency in our faculty; we have the tendency to believe that spirituality is a private matter yet we see its importance in a person's health.*

Second, there was evidence of conceptual confusion surrounding the terms *spiritual dimension, spirituality,* and *religion.* For example, here are the comments of two respondents:

> *I'm not sure if nurses should promote spiritualism. Probably nurses should acknowledge and accept the client's perspective. Nurses should certainly not promote religions.*

> *I find the spiritual dimension of nursing care to be neglected in practice and in discussions with students. I find I need to facilitate discussion to help students go beyond the strict (and limiting) framework of organized religion.*

Data analysis revealed further evidence of conceptual confusion. Some responses to questions about the spiritual dimension related more to religion than to spirituality. For example, when asked to identify methods used to facilitate learning about the promotion of spiritual health, one respondent stated, "Students are encouraged to learn about clients' diverse religious backgrounds." And when asked in which required courses the spiritual dimension was addressed, another respondent stated that students were required to take religious studies courses.

The third finding is that the spiritual dimension was sometimes subsumed under other concepts such as culture, healing, or the psychosocial dimension, rather than viewed as a distinct dimension. Following are the comments of three respondents:

> *Spiritual aspects of nursing care are addressed in relation to client and family experiences related to health and illness within the context of culture*

> *The concept of healing includes spirituality.*

> *The spiritual dimension is subsumed under the psychosocial dimension.*

While all of these concepts may be interrelated, they are not necessarily identical.

Curricular and Course Objectives

Two questions focused on curricular and course objectives. Regarding curricular objectives, respondents from four schools (22.22%) unequivocally indicated that their curriculum included objectives focusing on the spiritual dimension, while respondents from 14 schools (77.78%) could not identify specific objectives. The four schools that responded positively — three in the western provinces and one in the Atlantic provinces — provided sufficient evidence that their curricular objectives addressed the spiritual dimension directly or indirectly. Respondents from two of the four schools gave examples of objectives that reflected a specific religious worldview, while the other two did not comment on any particular religious influence. For example, one respondent identified a curricular objective as

> *[to] prepare graduates to provide holistic care based on a knowledge of physiological, psychosocial, cultural, spiritual, and environmental dimensions, and a respect for people's right to participate in their own health care.*

Another made non-specific references to spirituality and religion:

> *…develop awareness of one's own values and relationship to spirituality… begin to understand the ways in which religion and spirituality are expressed…appreciate the role of spirituality in health crisis and transition.*

While seven schools (38.89%) did not have course objectives addressing the spiritual dimension, 11 schools (61.11%) did have such course objectives. The four schools that reported having curricular objectives were among the schools also reporting the existence of course objectives. Examples of course objectives addressing the spiritual dimension include: "identify common assumptions about spirituality," "describe common spiritual struggles of dying persons," "outline the components of a spiritual assessment," and "discuss ways of supporting individuals who are spiritually struggling."

When asked about required nursing courses addressing spiritual issues, some respondents indicated that the topic was woven throughout all nursing courses while others identified specific courses. Because most respondents answered generally as opposed to identifying specific courses, we are unable to report quantitative data on this topic. At two schools, religious studies were required courses, while respondents from other schools indicated that electives in anthropology, ethics, theology, and philosophy were frequent choices. These findings indicate that a minority of schools identify objectives related to the spiritual dimension

in their curricular and course objectives. It is apparent, however, that spiritual aspects of nursing are addressed in both classroom and clinical courses, even in schools for which no program or course objectives relating to the topic were identified.

Methods Used to Facilitate Learning

Thirty-six out of 39 respondents (92.3%) identified specific methods used to facilitate learning about the spiritual dimension. Each of these respondents identified multiple methods, such as spiritual assessment guides, lectures, group work, discussion, talks by guest speakers including clerics, videos, readings, case studies, clinical conference discussions, faculty role-modelling, self-reflection, story-telling, meditation, and journal writing. One respondent wrote:

> *Through use of a narrative assignment [students] examine how their perspective (values and beliefs) facilitates or constrains the development of a relational narrative with the other.*

Another described role-modelling:

> *There is a strong focus on instructor initiated discussions — critical thinking questions, offering presence, showing acceptance of diversity, cultural differences/beliefs, using touch, creativity, prayer, respect, making referrals, and attending to the importance of rituals. I discuss spirituality and spiritual concerns with the students' clients with the students looking on.*

Some respondents discussed strategies that encourage students to explore the beliefs and values of others: "I encourage the students to enter imaginatively into the world of each religious tradition we study"; "Students do a critical analysis of situations presented in a video tape on the end of life issues. They compare their own attitudes and beliefs on life and death with those presented in the film." One respondent described the use of various methods for facilitating learning about the spiritual dimension:

> *The main facilitative method is based upon establishing a relationship with the client. Getting to "know" the client and with the development of trust, it is believed the client will share the spiritual aspects of life that are important for the nurse to know.*

Methods Used to Evaluate Learning

When asked to describe methods used to evaluate student learning about the spiritual dimension, respondents from eight schools (44.4%) reported that no specific method was used. In the remaining schools, knowledge in this area was evaluated primarily within clinical courses, by means of

clinical evaluations, reflective journals, and post-clinical conferences. Five schools used classroom examinations as a means of evaluation and three schools used class assignments.

Discussion

The results of this study reveal the extent to which the spiritual dimension is being addressed in Canadian undergraduate nursing education. It can be assumed that when there is faculty consensus about a content area being highly valued, that content will appear in curricular objectives. The findings therefore indicate that only a small proportion of schools include the spiritual dimension among their curricular objectives. The findings also suggest a lack of consensus on the importance of the spiritual dimension as well as conceptual confusion about spirituality and religion in nursing schools. Addressing the spiritual dimension is viewed by some as crossing over into the religious realm and thus as inappropriate because they consider religion a personal matter. There is evidence that some educators view the spiritual dimension as a part of the psychosocial dimension. While a more thorough discussion of historical and societal factors related to this viewpoint would be helpful, such a discussion is beyond the scope of this paper. Suffice it to say that if it is believed that a spiritual dimension exists, whether separate or subsumed under another dimension, nursing has an obligation to address it in nursing practice. Failure to do so will make it difficult for nursing to claim that it is holistic in its approach to the care of human beings.

It is puzzling to note that even when curricular objectives at a given school do not specify the spiritual dimension, many of the courses do include such objectives. The responses regarding individual courses indicate that some faculty members have integrated the spiritual dimension into their theoretical and clinical teaching while others have not. This finding gives rise to concern that the inclusion or exclusion of the spiritual dimension will become a haphazard matter and has implications for students and their future practice. For example, is the practice of nurses who have been educated in the spiritual dimension different from that of other nurses? Do patients perceive a difference in terms of the care they receive?

The findings of this study indicate that some faculty members are using creative and diverse methods to promote learning about the spiritual dimension in classroom and clinical settings. The extent to which these faculty members are working in isolation, without the support of their colleagues and curricular frameworks, remains unclear. Is there open discussion on the spiritual dimension and its place in nursing education and practice? Forty-four percent of the schools surveyed did not evalu-

ate student learning concerning the spiritual dimension. What message does this give to students about the place of spirituality in nursing practice? An area for further research would be students' perceptions regarding their learning about the spiritual dimension.

The results of this study show that it is time to seriously engage in a dialogue about the spiritual dimension in nursing education. The conceptual confusion in this area, and its possible impact on nursing practice, is a concern for nurse educators and researchers alike. Nursing educators may be in a good position to take the leadership in generating debate and developing clarity in this area.

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Résumé

Les contraintes auxquelles sont soumis les partenariats intersectoriels dans le domaine de la santé des femmes : leçons découlant de l'expérience canadienne

Wilfreda E. Thurston, Catherine M. Scott, Tammy Horne et Lissa Donner

Le présent article aborde, à la lumière des leçons tirées dans trois différentes études, les enjeux qui limitent la capacité des organisations féminines à établir des partenariats visant, par l'élaboration et la mise en œuvre de politiques, à promouvoir la santé des femmes. Les principales questions concernent les valeurs sous-tendant le partenariat et la participation, la communication intersectorielle, les différentes visions du monde et les ressources limitées des organismes féministes. En surmontant ces contraintes et en tirant profit des réussites et des échecs, ces derniers devraient être en mesure de promouvoir la santé des femmes grâce au partenariat intersectoriel. Le secteur de la santé et les professionnels doivent s'ajuster à ces contraintes pour pouvoir bénéficier de l'expertise résidant au sein des organisations féminines.

Mots-clés : partenariat, participation, santé des femmes, politiques, intersectoriel

Constraints on Women's Intersectoral Health Partnerships: Lessons from Canada

Wilfreda E. Thurston, Catherine M. Scott, Tammy Horne, and Lissa Donner

Issues that constrain women's organizations from developing partnerships that promote women's health through health policy development and implementation are discussed in terms of lessons drawn from 3 studies. Key issues are the values underlying notions of partnership and participation, communication across sectors, different worldviews, and the resource limitations of feminist organizations. By attending to constraints and learning from successes and failures, women's organizations will be able to promote women's health through intersectoral partnering. The health sector and health professionals need to respond to the constraints in order to benefit from the expertise that resides within women's organizations.

Keywords: partnership, participation, women's health, gender, policy, intersectoral

Introduction

The purpose of this paper is to explore issues that may constrain women's organizations from developing partnerships that are successful in promoting the health of women through health policy development and implementation. We include both development and implementation of health policy to emphasize the fact that participation through partnerships can extend to monitoring the implementation processes, as well as assessing outcomes, suggesting modifications, and returning full circle to implementation. Development and implementation, therefore, may include research such as evaluation.

Partnerships are one strategy for increasing the participation of women in health policy development and implementation. Using a framework for partnership development (Scott & Thurston, 1997), we analyzed data from two projects that examined the roles of women's organizations in health policy development (Horne, Donner, & Thurston, 1999; Thurston, Crow, & Scott, 1998) and a third that examined the impact of health policies on women (Scott, Horne, & Thurston, 2000). In the first project (Thurston et al., 1998), focus groups were held with representatives of 64 women's organizations and coalitions in the

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province of Alberta, Canada. The purpose of that study was to clarify the roles of women's groups in research and in policy development and implementation. In the second project (Horne et al., 1999), interviews were held with representatives of eight regional health bodies in the provinces of Manitoba and Saskatchewan, and the needs assessment and health plan documents of 28 regional health bodies were analyzed. The purpose of that study was to assess the integration of gender analysis into health policy development and implementation. The third project involved a policy analysis and literature review concerning the impact of privatization on women in Alberta.

We begin by discussing participation in health policy development and implementation and the notion of partnerships. We then discuss 12 lessons we have drawn concerning constraints on partnership development and implementation.

Participation in Health Policy Development and Implementation

Participation is a tenet of health promotion as encapsulated in the World Health Organization's (1986) Ottawa Charter definition. Fostering public participation is one of three strategies for health promotion encouraged in early policy documents issued by the Canadian government (Epp, 1986). Participatory action–research (Smith, Pyrch, & Lizardi, 1993), participatory research (Plaut, Landis, & Trevor, 1992), and participatory development (Kelly & Vlaenderen, 1995) are just some of the forms of participation thought to facilitate the process of health promotion.

The concept of public involvement in health system management preceded release of the major documents on health promotion cited above. In the 1950s, in fact, community development was synonymous with participation, according to Abbott (1995), and was central to the concept of primary health care introduced in the 1970s (Fournier & Potvin, 1995). In the 1970s Quebec reformed its health and social service system "under the banner of citizen participation" by creating the Centre Local de Services Communautaires (CLSCs) network (Godbout, 1981). More recently, one regional health authority in Alberta developed a Public Participation Framework that allows for a range of participation modes, from information exchange to delegation of authority to health programs (Maloff, Bilan, & Thurston, 2000).

In a variety of sectors, including health, partnerships have become a popular mechanism for, among other things, ensuring participatory policy development and implementation. The recognition that sectors other than health influence population health has increased the demand

for intersectoral partnerships (Draper, 1995). Much hope is placed in partnering for the purpose of, for instance, planning, mounting, and sustaining programs over the long term (Heart Health Nova Scotia, 1999; Ontario Health Promotion, 2000). Partnerships between organizations have been proposed as a solution to many of the problems faced by women in achieving optimum health (Feldberg & Carlsson, 1999; Giachello, 1995; Jadad, 1999; Zaini, 1988).

Partnerships

The term *partnership,* like the broader term *participation*, is used to describe many different relationships and understandings. For instance, "Ontario community heart health partnerships are known by many names — coalitions, networks, co-ordinating committees and work groups to name a few. They are referred to here, generically, as partnerships, and imply a group working towards a set of shared outcomes" (Ontario Health Promotion, 2000). The relationships captured in the term partnership may differ in structure, degree of formality, mandate, and role. Organizations or individuals may be consulted on a topic or be involved in decision-making in a formal partnership. If women's health is to benefit from partnerships between organizations, its advocates will have to agree on how to define and then assess a partnership.

We recommend that the term partnership be reserved for a formal long-term relationship defined by a collective strategy that includes:

> a shared vision of a need and…the development of agreements to address a problem and bring the vision into reality. Collective strategies involve the establishment of a referent organization, which functions to regulate relationships and activities, appreciate emergent trends and issues, and provide infrastructure support. (Scott & Thurston, 1997, p. 416)

The referent organization (Trist, 1983) for a partnership may be as simple as a joint management committee in which collaboration takes the form of shared decision-making; therefore, someone who is labelled a partner should not be asked to serve in an advisory capacity only. Some common characteristics of partnerships include shared authority; responsibility and management; joint investment of resources (time, work, funding, material, expertise, information) and reputation; the development of a new structure; comprehensive planning; detailed communication strategies; the distribution of power — it may be unequal; and shared liability, risk, accountability, and rewards (Health Canada, 1996; Scott & Thurston, 1997; Winer & Ray, 1997).

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Constraints on Intersectoral Partnership Development

The partnership framework (Scott & Thurston, 1997) that we use to identify constraints for women's organizations consists of six categories: external factors, domain, partnership characteristics, partner characteristics, communication, and operations. We will first briefly describe each of these categories and then discuss the lesson we draw from our analysis. *External factors*, such as the political and economic system, influence the partnership at the administrative level or at the service provision level; they are the socio-political context in which the partnership functions. The *domain* is the sphere of interest of the partnership. The *partnership characteristics* reflect the way in which the partnership is established, including the groundwork necessary to initiate it. Each partner will have distinctive *partner characteristics,* such as the organizational structure of the partner agency; the resources that the partner and its representative bring to the partnership; representation of the target group in the partner agency; and the reputation of the partner, its personnel, and the group(s) it serves. *Communication,* which affects all of the other categories, can be either formal or informal. *Operations*, which, like communication, affect all of the other categories, are the administrative and service provision activities carried out on behalf of the partnership; the types of operations carried out by the partnership interact with the external environment, the domain, partnership and partner characteristics, and communication; operations are limited by time frame, available resources, and expertise.

External Factors

Lesson 1. The impact of *external factors* has intensified the role of local, provincial, and national networks. The shifting of administrative and financial responsibilities from the province to local health authorities has exponentially increased the number of targets of health policy lobbying. It is now next to impossible for women to organize, as they once did, to have a program instituted provincially. In addition, globalization and the impact of policies such as the North American Free Trade Agreement have broadened the range of concerns that activists must analyze when preparing a local response. Local partners may need to draw on the expertise of national organizations in order to respond. The Canadian Women's Health Network plays an important role in dealing with constraints on access to and synthesis of information; the Centres of Excellence in Women's Health Research do as well, but their long-term future is currently in doubt.

 Lesson 2. A formal partnership agreement can soften the impact of change in terms of partner representatives and commitment. Because of the speed and persistence of change within the health and voluntary

sectors, health personnel with whom organizations have built up a working relationship are frequently transferred or discharged. The transfer of responsibility will be easier if the partnership is formally documented. The loss of a champion, however, can threaten the success of a partnership and can make it difficult for champions in women's organizations to continue their work.

Women's organizations have been constrained in their ability to advocate for women's health because they are now trying to provide more services with the same or fewer resources, while staff and volunteers are also expected to do more. Cutbacks in health and social services have resulted in more women, and more women with complex problems, turning to not-for-profit women's services for help, thus putting more demands on those services at a time when their funding is also being cut (Thurston et al., 1998). Health "reform" has increased the burden of responsibility on women for the provision of care in the home, in the name of community-based care. For women's organizations, this has meant that their meagre underpaid staff and many volunteers often experience personal crises of care — sick children, parents, partners, or friends to attend to outside of their advocacy work. Given the constraints faced by women's organizations, formal partnership agreements should be regularly revisited and resource commitments renegotiated to reflect organizational capacities. In some cases, the strategic decision will be to seek new partners or to dissolve the partnership, leaving current partners with good working relationships.

Lesson 3. The partnership agreement must take into consideration the values and differences that drive the various partners. Fournier and Potvin (1995) point out that the literature on participation is fraught with inconsistencies, not the least of which is the failure to clarify the assumptions that underlie values. They identify three views of participation that have different underlying values: maximizing the outcomes of a program (a utilitarian view), helping people to take control of their lives (conscientization), and acting as a democratic tool to extend and protect the power of marginalized peoples (democratization). The last might be called the civil society viewpoint. Fournier and Potvin argue that these three views of participation are not mutually exclusive; however, we have found that the utilitarian view, coupled with a market discourse, often sidelines democratization goals in the health sector and in other sectors. The market discourse around price, efficiency, the consumer, and responsibility is not insignificant. In fact, it reflects a growing reluctance on the part of governments to continue to provide the welfare services that have been built up over the last 50 years (Lloyd & Gichrist, 1994). "The concepts of welfare for all and of the collective responsibility of the state for all its citizens are under increasing attack" in Europe (Van Rees, 1991,

p. 97) and also in Canada (Scott et al., 2000). Therefore, the collective orientation of feminist analyses to "the personal is the political" is discordant with the individualistic public sector discourse. Since a successful partnership depends upon agreement on goals, this discordance poses a threat.

Contrasting worldviews is a significant factor when program goals are being articulated within a partnership; for example, advocates of women's health may wish to question medicine's authoritative role in diagnosis and intervention by having others (e.g., nurses, peer practitioners, program participants) determine a program's admission criteria. Feminists will often have deconstructed medical explanations for women's health problems, such as "excess weight," and highlight the goal of minimizing the dominance of medicine. As Findlay and Miller (1994) put it, "faced with the prospect of having our fitness and bodyweight monitored and graded from the womb to the workplace, and perhaps into old age, we begin to grasp the far-reaching authority we have granted, as a society, to the medical profession" (p. 127). Thus a partnership around heart health, diabetes, or any one of a number of other health issues may be marked by fundamental differences, which, if revealed late in the partnership, could cause a fracture after significant resources have already been committed. Groundwork and communication are the best ways to prevent this from happening.

Domain

Lesson 4. The domain of women's health is often given either rhetorical attention or none at all. At best, it is the focus of small sections in a given health system. The Canadian government has expressed a commitment to women's health several times and has initiated exemplary health promotion projects for women (Thurston & O'Connor, 1996); however, significant national policy documents reveal that the commitment has not served to mainstream gender analysis. Scott, Thurston, and Crow (2002) assessed the treatment of gender and women's health in the 1990 report of the Federal Provincial Territorial Working Group on Women's Health, the 1994 report of the Federal Provincial Territorial Advisory Committee on Population Health, and the 1997 reports of the National Forum on Health. They conclude that gendered analysis has been generally inconsistent and weak unless the document addresses women's health specifically. Most importantly, they report that the implications of the analysis are rarely reflected in the policy recommendations. The establishment of a national Gender and Health Institute was announced in August 2000 as a result of concerted lobbying by women's health advocates to have women's health specified in the proposed Canadian Institutes for Health Research. The absence of a separate women's health institute had been

viewed by some as minimizing the importance of the domain in favour of children's and men's health. Given the fact that health professionals have great difficulty understanding the concept of gender, and continue to construct women's health as pertaining to reproduction or reproductive organs (Horne et al., 1999), apparently there is still a need to promote the domain of women's health.

Projects carried out in three provinces reveal similar constraints around the domain of women's health, including a failure to mainstream gender analysis of health policy at both provincial and regional levels (Horne et al., 1999; Scott et al., 2000). In assessing the gendered analysis of health-needs assessments and health plans in Manitoba and Saskatchewan, Horne et al. (1999) found little evidence of gender analysis being a practice or even understood, despite the stated intention of one government to make women's health a priority. As with the federal documents, at the provincial and regional levels the best effort at attending to women's needs was presentation of epidemiological data, usually concerning breast cancer, breastfeeding rates, or some other unavoidably female issue. Much of the remaining data were not even disaggregated by sex. Furthermore, in interviews conducted with health policy-makers, the discourse on women's health was situated within concerns about women's reproductive role and their role as guardians of the health of children and husbands. There was little attention to diversity among women in terms of ethnicity, disability, sexual orientation, or other social characteristics. Few districts or health authorities had engaged women's organizations in either needs assessment or health planning.

Women's health advocates are also constrained by differences in philosophy and strategy. Feminists have come to the conclusion that there are many types of feminism and many strategies, and that the community must provide a space for debate and criticism (Crow & Gotell, 2000). Representatives of women's organizations, however, often feel that analytical differences cannot be debated publicly because anything less than a united front is grounds for minimizing all of their concerns. Zadek (1999), in discussing responses to globalized trade practices, describes the constraints against presenting a united front:

> The concerns underpinning this work [developing ethical trade practices] include the rapidly escalating inter-relatedness and complexity of civil society issues; the profusion of initiatives, networks and alliances; radically different interpretations of relative strengths and weaknesses of different initiatives and approaches; and shortfalls in strategic thinking in this area, or at least institutional fragmentation of strategic perspectives. (p. 1)

Partnership Characteristics

Lesson 5. The ongoing work of relationship building, both among women's health advocacy organizations and among sectors, is important for communication and for the ability to respond quickly to opportunities to form strategic partnerships. One partnership characteristic that affects the ability of a partnership to achieve success is the groundwork that is laid before it is launched. The formal and informal relationships established through work, social activities, cultural events, and shared connections do much to ease an organization's transition into a partnership situation. When we speak of a women's community, we mean the shared understanding and networks that serve to build a climate of trust. The study conducted in Alberta, however, revealed that policies increasingly erected barriers to networking (e.g., by failing to support a provincial women's advisory council, reducing program funding) (Scott et al., 2000). The weaker the network, the more time (a precious resource for women, both volunteers and employees) it takes to identify appropriate partners and make connections. While women in smaller communities have the advantage of knowing each other, they face other constraints such as loss of privacy or difficulty making the transition from social acquaintance to partner. On the other hand, shifting identities is difficult in all settings; for instance, professionals revealed a reluctance to give up the power associated with expertise and to trust the ability of others to analyze their community's problems and offer solutions. Similar issues have been identified in other studies (Freyens, Mbakuliyerno, & Martin, 1993).

Partner Characteristics

Lesson 6. An ongoing problem for women's health organizations is dealing internally with the issue of representation. The importance of formal representation of the target group in the partner agency is one of the *partner characteristics* discussed by all the informants in an earlier study (Scott & Thurston, 1997). In the present study, such characteristics varied from partnership to partnership; for example, some agencies involved the target group at the board/management committee level while others sought feedback through questionnaires or informal meetings. Representatives of women's organizations discussed the constraints of involving women from many different backgrounds. Women in rural areas discussed the constraint of distance, while other women mentioned racism and different cultural norms among communities. While there are no simple solutions to the issue of increasing representation, several actions are possible. These include paying extraordinary costs, providing opportunities for skill building, and attending to process issues in meet-

ings in order to minimize inequities (Wiebe, MacKean, & Thurston, 1998).

Lesson 7. An unexpected outcome of partnership development is increased competition among women's organizations. While perhaps not intentional, the outcome of a partnership may be the strengthening of one partner's "comparative position within a wider context of clientilism and patronage" (Whaites, 1996, p. 241). In other words, competition for the position of sole organization to understand and speak for a certain group of people, and, ultimately, control financial and practical support, is a reward that is difficult to turn one's back on once it becomes a possibility. Health organizations may favour certain agencies because they are "easier to work with," which can mean anything from having a similar philosophy to being large and therefore more likely to have staff available to attend meetings at the health organization's convenience. Maintaining local networks with open lines of communication is one way to offset this constraint, although the stress on women's organizations and cutbacks in the funding of coalitions have made such networking more difficult. Local groups that do network can reach agreements on the boundaries for competition: for instance, violence-prevention services may agree that they will not apply for funding that would normally go to women's shelters.

Lesson 8. Increased "professionalization" and delegated authority can change the nature of or reduce an organization's advocacy role. Professionalization refers to a situation in which professional status is more highly valued than life experience or ability (Crow, 2000). For example, organizations may agree to use professionals in place of experienced practitioners. If these professionals require higher salaries than other agency staff, internal tension can result. Some respondents stated that professionalization weakens the organization's focus on social criticism; Whaites (1996) contends that this threatens the organization's role in the civil society. The term most commonly used in this context was *co-optation*. Thus a partnership that results in delegated authority can change the relationships among women's health advocates. Being aware of this possibility and creating mechanisms such as opportunities to discuss strategic decisions in relation to underlying philosophies may serve to offset any long-term negative consequences.

Communication

Lesson 9. Technology offers considerable communication and networking opportunities. Technological means of *communication* include the telephone, the fax machine, e-mail, Web sites, and video conferences, the result of which is "better networking" (Giachello, 1995, p. 12). Many of the women's organizations examined in the studies, however, were strug-

gling to maintain a basic office and telephone service. If they had a computer, they may have lacked high-speed Internet access or, more importantly, the personnel and time necessary to sort through the plethora of Web sites and listservs that are available (Thurston et al., 1998). Opportunities are increasing, however, and as new electronic media become available women's organizations are developing mechanisms to transform them into effective tools. National women's organizations in Canada are particularly adept at identifying credible and useful Web sites and distributing this information through listservs.

Lesson 10. Communication is a key facet of successful partnerships and an area where power is revealed and should be negotiated. Participation is one concept upon which potential partners should agree. Citizen participation and consumer participation are frequently assumed to be synonymous with public participation but may represent divergent worldviews. Although citizen participation and public participation are similar concepts, we prefer the term public participation because it avoids the issue of geopolitical status (such as immigrant status). Consumer participation is linked to the application of the market model to health care, in our opinion, and does not reflect the reality of women's experience. Women cannot "shop" for health care in the way they shop for consumer goods. Some women, in fact, cannot afford to shop at all. The views of some women in the studies are reflected in a statement by Mintzberg (1996): "I am not a mere customer of my government, thank you. I expect something more than arm's length trading and something less than the encouragement to consume" (p. 77).

Attempts to reach agreement on the meaning of participation often reveal power imbalances surrounding professional expertise and language. The use of medical and technical jargon may be the easiest hurdle to overcome — a glossary, for instance, would be a simple solution. The larger issue, however, is one of legitimating speech when power differentials exist. Women with disabilities, little education, or menial jobs report feeling silenced by health professionals. Kelly and Vlaenderen (1995) identify the difficulties of engaging in dialogue in the face of power differentials: "Dialogical dynamics of marginalization continued to operate even in a situation which was explicitly designed to overcome marginalization" (p. 372). A commitment by professionals to monitor their use of jargon and formal structures within the referent organization, such as rules of engagement at meetings, can help in maintaining equity.

Operations

Lesson 11. The *operations* or activities undertaken by a partnership can make considerable demands on the partners. Women's organizations reported finding it increasingly difficult to spend many hours consulting

on the programs and activities of health authorities. In one case, an estimated 3881.5 hours were contributed to a regional coalition (Heart Health Nova Scotia, 1999); at the modest rate of $15 an hour, this amounts to $58,222. Care must be taken to ensure that the type of activities that are carried out and the manner in which they are carried out will advance the vision of the partnership without harming one of the partners. This leads to the most significant question for any potential partner: Is a partnership necessary to achieve the desired goal? A partnership may appear to be a more economical or efficient way of getting the job done because one of the partners is absorbing costs disproportionate to its resources. However, our work on gender analysis indicates that partnerships among women's health organizations may be the only way to ensure that a program is woman-centred. As long as women's organizations are under-funded, the health system may have to value the women-centred approach and community partnerships by supporting the partners financially.

Conclusion

We have identified a number of constraints faced by women's organizations in developing intersectoral partnerships, several lessons to be drawn concerning such partnerships, and some strategies for overcoming the constraints. All of the categories of factors for analyzing partnerships are interconnected. The many constraints could leave one feeling quite pessimistic about the potential for achieving social change through intersectoral partnerships. However, we have also found that intersectoral partnerships can advance women's health and that feminist health groups are a key source of knowledge for the planning and development of programs in the health sector. Advocates of women's health possess a great deal of expertise in overcoming inequities, and this expertise needs to be shared widely. Women's organizations, researchers, activists, and theorists can use the lessons we have identified in conjunction with the strengths inherent in the women's movement to overcome the constraints.

In all three provinces in which the studies were conducted, the status of women has improved both legally and materially in the last decade, not because policy-makers have suddenly acted in a spirit of beneficence but because of women's organizing. While women are adapting to the differential impact of health reforms on their lives, history tells us that such policies cannot drive women back into the home nor reverse the gains they have made. As gains in the status of women become threatened by policy changes, more women may be willing to support activist organizations. At the same time, we hope we have added to the opportunities for women's organizations to learn from partnerships and share

strategies in order to counteract the restrictions placed on them by funding cutbacks, increased workloads, and other social pressures. Learning from other countries and from other sectors such as international development is one such opportunity in this complex, interconnected world.

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