Volume 46 N° 4 CJNR December / décembre 2014

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EDITORIAL

Coming to Terms With the Nursing Discipline: A Call for More Bicultural Troublemakers

Being a nurse scholar is a balancing act that goes beyond juggling activities. It involves living with a tug-of-war, within the profession and often within oneself, between competing ideals and priorities. By nurse scholar, I am not referring solely to a nurse who holds a doctoral degree or a university appointment, but to all nurses who grapple with the movement of ideas back and forth across practice, theory, and empirical evidence. According to this definition, all nurses and nurse leaders attempting to implement evidence-based, evidence-informed, theory-driven, or even conceptually coherent practices are considered scholars, joined by nurse educators attempting to shape the next generation of the profession as well as nurse researchers, scientists, and scholars of various stripes attempting to consolidate and grow the body of thought connected to nursing.

There is a deep and arguably widening divide between the focus of nurse academics and their output and the work of a large majority of those practising nursing. We struggle continually to explain what it is we do in anything but instrumental terms to ourselves and to those outside our profession. Many of us are ambivalent about nursing theory but are reluctant to abandon the idea of profession-specific expertise in nursing. In the end, our longstanding grappling as nurse scholars results from having a corpus of language, principles, and sometimes even methodological approaches that our socialization and our professional networks connect us to — but that have proved inadequate to address the breadth of practical and intellectual challenges confronting nurses. Furthermore, in the face of increasing pressure to address health-care concerns as perceived by patients, policy-makers, and interdisciplinary colleagues, overemphasis on discipline-specific language and orientations has led to communication breakdowns and even political and career barriers in today's practice and research environments.

Perhaps the nurse scholar's dilemma is similar to that of the newly hatched professional who has come through an extended period of theoretically based study and finds that the practice world does not embrace

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the same norms and expectations one is exposed to in educational programs. Like the newly graduated nurses in Marlene Kramer's (1974) classic study of reality shock, who were confronted with inconsistencies between the worldviews taught to them in university and the demands and realities of practice, scholarly nurses need to find their way out of a bind. They have to choose between two paths: either work in isolation in a separate scholarly tradition and miss out on what other disciplines have to offer, or ignore the usefulness of nursing-specific ideas, find potentially shaky homes in other disciplines, and discard potentially crucial intellectual anchors.

Nurses new to practice can reject values and habits of mind from academic training, replace them with a pragmatic approach and do only what they believe is rewarded by their institutions, and become entirely focused on technique and institutional politics. A second path for a new nurse is to retain an idealized view of the profession as it might be practised independently of financial and political constraints — which can lead to a fruitless quest, across different roles and practice settings, for an environment that will permit and embrace that ideal. However, at least one other possibility exists. Over time, new nurses can cope with the inevitable tensions between the bureaucratic structures of most practice settings, and the academic and professional ideals that have limited application in the strictest sense, by blending the two contrasting views and pushing the boundaries of both practice and the academic model. Nurses can become, in Kramer's (1974) words, "bicultural troublemakers," or individuals fluent in both traditions and realities. They are troublemakers in that they ask uncomfortable but well-informed questions about rigid stances in both academic and practice settings and challenge norms in unsettling but politically astute ways. One might argue that bicultural troublemakers are likely to find a satisfying niche within nursing and that the best hope for the future of the profession's service to society lies with them.

I would argue that, even today, many nurse scholars have chosen to align themselves with the nursing separatist or isolationist stance and have contented themselves with a worldview that does not require engagement with health and social problems or the organization of health care as it is experienced in the real world. Many others have adopted an entirely interdisciplinary or even theory-free stance where there is no nursing discipline, nursing science is merely science done by nurses, and theoretical grounding for practice and research is an option rather than a necessity. Our students at each level of nursing education and new researchers in nursing receive mixed messages about nursing theory and science, with feuding faculty members and leaders pulling them in various directions. These budding nurse scholars see few, if any, role

models for reconciling the tensions. Meanwhile many of us continue to wring our hands about the future of nursing-specific scholarly venues like *CJNR,* believing that we may be allowing or even driving conditions that will lead to the end of nursing as a discipline.

Nursing needs more bicultural troublemakers within its scholarly tradition — individuals who are conversant in the history of ideas within the discipline and the emergence of a nursing discipline from the profession, but who are comfortable with the limits of a distinct line of theoretical thought and leery of the dangers of disciplinary separatism taken too far. These are individuals who understand the traditions of theoretical thinking in nursing and the contributions that theory has made to rendering nursing practice manageable and coherent to novices and experienced clinicians alike by framing the parameters of nursing assessments, the goals of care, and the nature of nursing interventions across client groups. They are individuals who are well aware of how understandings of specific concepts and ideas emerge from focused research and theoretical work informed by multiple disciplines. They realize that no one individual can ever master all the disciplines that could contribute to understanding a given phenomenon and are wary of carelessly importing incompletely mastered ideas from outside their expertise, but are willing to invest in learning about other disciplines that may be relevant and to seek interdisciplinary collaborators. The bicultural troublemakers I am speaking of are comfortable with the notion that the discipline and the profession can coexist and interact peaceably. They understand how nursing theories and models can provide a focus for evidence-guided practice but also why it is sometimes necessary and often helpful to look beyond our own backyards for solutions to particularly complex scientific and practical problems. Most of all, they understand why it is critical to encourage scholarship that is conducted by nurses, informed by nurses' practical experiences of health and health-care delivery and theoretical reflections, and that is independent from but responsive to the organizational realities of health care.

Instead of continuing to wring our hands as a solution to the nurse scholar's balancing act I referred to at the outset, let us we open our minds (or keep them open) to the full potential of the multiple paths towards scholarship that advance the goals of the profession. We should neither idealize nor ridicule the writings of those who attempt to articulate nursing-specific ideas, but come to terms with the forces that have led scholars to develop that work and understand what their contributions are. Likewise, we should neither idealize nor shun nurse scholars who find ideas and inspiration outside the nursing discipline, but instead consider the soundness with which they have incorporated ideas from outside nursing and the overall quality of their work, as well as the degree

to which their work contributes to solving the practical problems that face nurses and nurses' roles in delivering health care. Instead of choosing sides in the nursing-specific versus interdisciplinary dichotomy and trying to convince our students, research trainees, and junior colleagues to take our side in the debate, let us show sufficient confidence in our profession, our discipline, and their futures to allow ourselves and each other to embrace both.

Sean P. Clarke
Editor-in-Chief

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CJNR 2014, Vol. 46 Nº 4, 7–12

Discourse

Reflections on the "Caring Disconnect" in Nursing

Maher M. El-Masri

Caring has for years defined nursing, to the point where "nursing" and "caring" now have become almost synonymous. It is almost impossible to come across a source defining the scope of nursing practice that does not list caring as the top nursing behaviour and/or responsibility.

Most nurses indeed do exemplary work caring for individual patients, families, and communities. History shows that during difficult times (e.g., ebola and SARS outbreaks) when others appear to become self-protective, nurses selflessly and courageously put the needs of their clients ahead of their own in an amazing display of caring.

It is important to acknowledge, however, that caring in nursing is not limited to clients. Nurses need to ask themselves whether, by their words and deeds, they also convey respect and regard for their colleagues up and down the hierarchical ladder. To act otherwise not only undermines caring as one of the tenets of nursing, but also ignores the growing body of research supporting the deleterious impact of bad behaviour on the health and well-being of colleagues in the workplace. If caring is, as argued by Watson (2012), a moral imperative of the profession, then it is important that nurses live up to that expectation at all times.

While the majority of nurses do a remarkable job of caring for their clients, it is my position that they do not do nearly as well caring for one another. Lack of collegial caring in nursing is not always limited to apathy and indifference. It sometimes takes the more troubling form of bullying and incivility. This disconnect between caring as a coveted value of the profession and the paucity of caring behaviours towards one another is damaging to nurses and the profession. The purpose of this Discourse is to challenge the state of caring in nursing and address the uncomfortable reality of the frequently ignored lack of collegiality and professionalism in nurse-to-nurse relations. This is a controversial topic that many would rather avoid. I, however, believe that so long as we fail to challenge the status quo in terms of collegiality and professionalism in nursing, our efforts to promote the professional standing of nursing will be hindered.

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The concept of caring from the perspective of client care is well defined and thoroughly documented in the nursing literature (Smith, 2013; Watson, 2012). Watson has developed a widely accepted theory of human caring in nursing in which she defines caring in the context of core principles that include the practice of loving kindness and equanimity (Watson, 2012). Smith defines caring as the cognitive and culturally learned actions, behaviours, techniques, processes, or patterns that enable (or help) an individual, family, or community to improve or maintain a healthy condition or lifeway. There is no doubt that nurses are compassionate care providers whose work embodies the essence of caring. Nurses put their hearts and souls into serving and advocating for their clients. They never hesitate to do what is best for their clients, regardless of how challenging that might be. It is not at all surprising to see a nurse genuinely and sincerely comforting a client or a client's family member during critical times. It is also not surprising to see nurses wholeheartedly advocating for their clients across all levels of the health-care system. However, there is little evidence indicating that nurses display the same level of caring regarding their nursing colleagues.

I am not suggesting that nurses ought to be touchy-feely professionals who expect tender support from their fellow nurses. Neither am I implying that nurses are a bunch of angry villains who wake up every morning plotting to make the lives of one another miserable. I do believe, however, based on 28 years of personal nursing experience in four countries and on a plethora of reports in the nursing literature, that behaviours such as incivility (Clark, 2013; Laschinger, Wong, Regan, Young-Ritchie, & Bushell, 2013; Luparell, 2011) and bullying (Cleary, Hunt, & Horsfall, 2010; Hutchinson, Vickers, Jackson, & Wilkes, 2006; Murray, 2009) are serious issues that plague the profession. Thompson (2012) explains that bullying in nursing is very pervasive and that it is detrimental to the profession. Examples of uncivil and bullying behaviours in nursing include taunting, eye rolling, gossiping, plotting, passive-aggressiveness, and abuse of power. The impact of such behaviours is harmful to the personal and professional well-being of nurses and to nursing as a profession. For instance, burnout is a real concern that is extensively reported in the nursing literature (Ilhan, Durukan, Taner, Maral, & Bumin, 2008; Kanste, Kyngas, & Nikkila, 2007; Poghosyan, Clarke, Finlayson, & Aiken, 2010; Shirey, 2006), with evidence suggesting a strong association between workplace incivility and burnout in both clinical practice and academia (Laschinger et al., 2013; Luparell, 2011; Oyeleye, Hanson, O'Connor, & Dunn, 2013; Smith, 2013).

It is troubling to know that bullying and lack of collegial caring in nursing are equally prevalent in the practice and academic sectors. In practice settings, lack of caring is often manifested in the form of

impatience towards and criticism of the new nurse or the nursing student who may need a few extra minutes to perform a procedure or comfort a patient. It can also take the form of intimidation and belittling of colleagues who may lack self-confidence or who do things differently. Lack of caring and incivility in academia may take the form of taunting, eye rolling over differences of opinion, belittling or marginalization of junior faculty, failure to celebrate the successes of colleagues, and the creation of "power wings" that intoxicate and fragment the academic environment. The end result of such behaviours is often a paralyzing sense of distress that compromises the group's coherence and professional productivity.

As much as we might wish to dismiss the notion of incivility, bullying, and lack of collegiality in nursing, we cannot ignore the fact that it is an issue and must be addressed. We should ask not *whether* we have a problem in nurse-to-nurse professional relations but *why* bullying is so pervasive in nursing and what we can do to end it. These are two legitimate questions that every nurse needs to individually and collectively address in order to eliminate such destructive behaviour or at least minimize its impact on the individual nurse and the profession.

There is no concrete evidence as to the root causes of uncivilized and bullying behaviours among nurses. However, several authors (Dellassega, 2011; Thompson, 2012) have provided possible explanations for these behaviours. Regardless of the root causes, it is important that we acknowledge the seriousness of the problem and agree that it is in nursing's best interest to put an end to it. We should also acknowledge that bullying and uncivil behaviour not only reflect badly on the individual nurse but also taint the entire profession. Bullying and incivility drain the collective energy of nurses and distract them from focusing on their professional goals.

Nurses are the largest segment of the health-care sector. We probably outnumber physicians and all other health-care providers combined. However, our influence in the health-care system and in society is not even close to that of physicians or other health professionals. In my judgement, this irony is partly attributable to our current culture of fragmentation and professional apathy, which may be the outer manifestation of the rather sinister problem of uncivilized behaviour and bullying among nurses. Nurses cannot expect others to respect them when they continue to show disrespect towards each other. I believe that eliminating the caring dichotomy in nursing and displaying true collegiality and professional respect are key to changing our self-limiting status quo. Nurses stand to lose nothing by mirroring their client care to their colleagues. In fact, they stand to make tremendous gains by developing a culture of collegial compassion, respect, and support.

Given the rich diversity of nurses, one cannot expect them to always agree on everything. Nurses can and must, however, learn to respect professional disagreement and difference of opinion. After all, diversity and the free exchange of ideas enrich nursing and create opportunities for dialogue and the quest for excellence. We must not, however, allow professional disagreement and difference of opinion to escalate into personal conflict and adversarial relations. Nurses must not lose sight of their core values as they engage in their quest for excellence. It is my belief that we stand to individually and collectively gain when we compliment, support, and mentor one another instead of competing with one another. Let us take the time to celebrate our successes and promote a positive, collegial culture so that we can lead by example and reach new personal and professional heights. Let us remember that individual successes and achievements add to the collective advancement of nursing, which benefits us all.

The existence of a "caring disconnect" in nursing is especially troubling given that nurses have historically been subject to prejudgement and inaccurate portrayals in the media and in society. One would expect nurses to unite and lead by example to dispel any unworthy notions about them. But the historical ill-founded negative judgement of nurses, along with the fact that nursing is an inherently demanding and stressful profession, can entrap nurses and lead them to adopt poor coping strategies that amount to uncivilized and bullying behaviours. It is for these reasons that nurses need to display the utmost collegial support and unity in order to overcome their collective challenges and maximize the impact of their professional contributions.

In fact, nurses have made significant strides over the past three decades in establishing their role as respected health professionals. Nurses are now key players in the health-care system in terms of their leadership role and their contributions to practice, research, and policy-making. Yet nurses have a long way to go before they reach the full potential of nursing and assume the role of professional and community leaders. Such potential will continue to elude us unless we effectively address nurse-to-nurse relations and work together to create a more collegial and supportive workplace culture.

Caring is a combination of human affect and behaviour that nurses convey to their clients. Therefore, it is my belief that the solution to the problem extends beyond formal lectures, workshops, and expert panels, important as these may be. A grassroots approach is called for. Individual nurses need to engage in self-reflection about their relationships and interactions with other nurses. They need to make a conscious effort to not only abstain from engaging in bullying or uncivilized behaviours, but also commit to building a culture of collegial care and support. They

need to become agents of change by ensuring that all of their communications with and behaviours towards their nursing colleagues are rooted in the principles of professionalism and mutual respect.

Nursing education programs and nurse leaders have a responsibility to lead by example and to develop a culture of caring for all. Nursing education programs need to put an emphasis on professionalism and collegiality throughout the curriculum. Nursing students should be mentored by example, so that they witness and experience respect, civility, and professionalism in all aspects of their nursing program. As role models for nurses and nursing students, nurse leaders and nurse educators have a special responsibility to display the utmost collegial respect and professionalism. They need to refrain from engaging in egocentric and punitive behaviours and nurture a supportive culture with zero tolerance for uncivilized and bullying behaviours.

The current state of the nurse-to-nurse relationship is detrimental to the advancement of nursing. We must commit to building a positive collegial culture rooted in the core nursing principles of caring, collaboration, respect, and professionalism. Bullying and incivility have no place in nursing. Such behaviours must be identified and rejected. Nursing faces significant challenges with regard to its role in the health-care system and in society. Nurses are best able to to address these challenges as a united and supportive cohort instead of weak fragments. Let us keep in mind that it is when we respect our own that we have the respect of others. We owe it to ourselves and to our profession to be role models for professionalism, respect, and collegiality. It is only when we do so that nursing as a leading profession will truly be realized.

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CJNR 2014, Vol. 46 Nº 4, 13–32

Canadian Nurse Practitioners' Therapeutic Commitment to Persons With Mental Illness

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The purpose of this study was to determine how Canadian nurse practitioners (NPs) rate their levels of therapeutic commitment, role competency, and role support when working with persons with mental health problems. A cross-sectional descriptive, co-relational design was used. The Therapeutic Commitment Model was the theoretical framework for the study. A sample of 680 Canadian NPs accessed through 2 territorial and 9 provincial nursing jurisdictions completed a postal survey. NPs scored highest on the therapeutic commitment subscale and lowest on the role support subscale. The 3 subscales were correlated: role competency and therapeutic commitment were the most strongly associated ($r = .754$, $p < .001$). To have a positive impact on the care of persons with mental health problems, educators, policy-makers, and NPs need to assess and support therapeutic commitment, role support, and role competency development.

Keywords: therapeutic commitment, competency, role support, mental illness, nurse practitioner

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Résumé

L'engagement thérapeutique des infirmières praticiennes canadiennes envers les personnes atteintes de maladies mentales

Anne Marie Creamer, Judy Mill, Wendy Austin, Beverley O'Brien

Cette étude a pour objectif de déterminer la façon dont les infirmières praticiennes canadiennes (IP) déterminent leur degré d'engagement thérapeutique, leur compétence de rôle et leur soutien de rôle dans des contextes de travail avec des personnes atteintes de troubles de santé mentale. Un cadre descriptif transversal corelationnel a été utilisé. Le modèle d'engagement thérapeutique a servi de cadre théorique. Un échantillon de 680 IP canadiennes recrutées dans deux juridictions territoriales et neuf juridictions provinciales infirmières ont rempli un sondage envoyé par la poste. Les IP ont obtenu le score le plus élevé quant à la sous-échelle de l'engagement thérapeutique et le score le plus faible quant à la sous-échelle du soutien de rôle. Les trois sous-échelles ont été corrélées : la compétence de rôle et l'engagement thérapeutique affichaient l'association la plus élevée ($r = 0{,}754$, $p < 0{,}001$). Pour assurer un impact positif sur les soins aux personnes atteintes de troubles de santé mentale, les éducateurs, les décideurs et les IP doivent évaluer et soutenir l'engagement thérapeutique, le soutien de rôle et le développement de compétences de rôle.

Mots clés : engagement thérapeutique, compétence, soutien de rôle, maladie mentale, infirmière praticienne

In 2012 approximately one tenth of Canadians 15 years of age or older reported symptoms consistent with at least one of six mental or substance use disorders during the previous 12 months (Statistics Canada, 2013). Mental disorders are interwoven with and further complicate the care of many illnesses, including cancer, diabetes, and cardiovascular disease (World Health Organization & World Organization of Family Doctors [Wonca], 2008, p. 22). Situating mental health (MH) care in primary care settings increases access to care, promotes respect for human rights, is affordable and cost-effective, and generates good health outcomes. Canada's national strategy to improve the health of individuals with mental illness and MH problems includes expanding the role of primary health care to meet the needs of this population and ensuring that providers possess core MH competencies (Mental Health Commission of Canada, 2012).

The rate of premature death from both natural and unnatural causes is higher among those with mental illness than in the general population (Capasso, Lineberry, Bostwick, Decker, & St. Sauver, 2008). For a variety of reasons, persons with mental illness do not receive the same level of health care as those without (Vahia et al., 2008; Xiong, Bermudes, Torres, & Hales, 2008). Multiple factors contribute to this phenomenon, including under-recognition of mental illnesses by health-care providers (Jackson, Passamonti, & Kroenke, 2005); inconsistent treatment regimes (Vahia et al., 2008); the dynamics of the patient–provider relationship; infrastructure issues, such as insurance; and levels of communication among care providers (Levinson-Miller, Druss, Dombrowski, & Rosenheck, 2003). Not all health-care workers have the knowledge and skills needed to address many of the challenges that negatively impact the health of these individuals.

The Role of Nurse Practitioners in Mental Health Care

Nurse practitioners (NPs) have expertise in the management of stable chronic illness, health promotion, and disease prevention, so they are ideally suited to play a significant role in the provision of care for individuals with mental illness and MH problems. In 2009 there were 2,048 licensed NPs in Canada (Canadian Nurses Association, 2011), and their numbers are climbing. In a survey of primary health care NPs (n = 371) in Ontario, 39% worked with people with addiction or MH problems, and the second most commonly reported health problem was mental illness/substance abuse (Sloan, Pong, Rukholm, & Caty, 2006). However, there appears to be no research examining Canadian NPs' perceived competency, support in their role, and commitment to working with this population.

The Therapeutic Commitment Model

It has been hypothesized that positive relationships between persons with mental illness and their health-care professionals lead to positive health outcomes (Kim, Kim, & Boren, 2008; Zeber et al., 2008) and are linked to the concept of therapeutic commitment (Lauder, Reynolds, Reilly, & Angus, 2000). The core concepts of a proposed theoretical model of therapeutic commitment are role support, role competency, and therapeutic commitment (Lauder et al., 2000). These concepts influence the effectiveness of generalist nurses' work with persons with MH problems; higher levels of therapeutic commitment lead to increased effectiveness and improved patient outcomes.

The theoretical framework for therapeutic commitment was developed to explain factors that affect the commitment of those in the non-specialist community who work with individuals with alcohol problems (Shaw, Cartwright, Spratley, & Harwin, 1978). Shaw and colleagues found that many non-specialist agents, including general practitioners, social workers, and parole officers, who had no available addiction specialist support and were faced with the care of an individual with a drinking problem, felt anxious in their role. As a consequence of this discomfort, therapeutic commitment was low. The individuals were referred to specialists in order to remove the person from the non-specialist's responsibility, or questions about alcohol consumption were avoided in order to evade the need to act on the problem. Conversely, those with adequate role support and appropriate competency, developed through education and experience, had a higher degree of therapeutic commitment and consequently increased effectiveness in their role. The Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ) (Shaw et al., 1978) was developed to test the model.

Lauder, Reynolds, Reilly, and Angus (2001) describe the care that district nurses in Scotland (n = 15) provide to individuals with MH problems, their perceptions of the support they receive from specialists, and their feelings of competency. The nurses believed they played a key role in patient care but felt unsupported by specialist services. If there was communication, the nurses felt it was inadequate and unsupportive. Additionally, they did not feel competent to deal with MH problems.

Role competency, role support, and therapeutic commitment are the core concepts in the Therapeutic Commitment Model. Therapeutic commitment is defined as "a predisposition to working therapeutically with people who have mental health problems and as a prerequisite for effective therapeutic interventions" (Lauder, Reynolds, Smith, & Sharkey, 2002, p. 484). Role support is "a self-perception that one has a source of specialist support from which advice can be easily obtained" (p. 484). Role

competency is the self-perception "that working with mental health problems is a legitimate part of one's role and that one has the skills and knowledge to discharge this responsibility well" (p. 484). Positive correlations between therapeutic commitment and role support ($r = 0.27$; $p < .001$), between therapeutic commitment and role competency ($r = 0.61$; $p < .001$), and between role support and role competency ($r = 0.30$; $p < .001$) have been found in a study that tested the model with registered nurses ($n = 152$) working in acute general hospitals (Angus, Lauder, & Reynolds, 2001). Similarly, positive correlations have been found between therapeutic commitment and role support ($r = 0.27$; $p < .05$), between therapeutic commitment and role competency ($r = 0.53$; $p < .01$), and between role support and role competency ($r = 0.49$; $p < .01$) in a study that tested the model with community nurses ($n = 82$) working in rural settings (Lauder et al., 2000).

In a study of environmental factors that impacted the therapeutic commitment of nurses working in inpatient MH settings ($N = 76$), experience in MH, role support, and participation in hospital affairs positively influenced role competency (Roche, Duffield, & White, 2011). A variety of factors that support quality nursing care, including support for continuing education, the availability of preceptors for new staff, and the expectation of a high standard of care, were positively linked with role support, while skill mix (i.e., proportion of RNs) was negatively linked — something the authors could not explain. Role competency and role support were associated with therapeutic commitment, with these factors explaining 45.2% and 9.3%, respectively, of the variance. Research using this model to examine the correlation between any health outcomes and therapeutic commitment has not been found.

The Study

Purpose

The purpose of this study was to answer the following research question: *How do NPs registered in Canada describe their therapeutic commitment, role competence, and role support when working with persons with MH problems and/or mental illness?* Additionally, NP characteristics that affect therapeutic commitment, role competence, and role support, such as work and educational experience, were examined. Three specific hypotheses were tested: (1) self-ratings by NPs of role support and therapeutic commitment will be positively correlated, (2) self-ratings by NPs of therapeutic commitment and role competency will be positively correlated, and (3) self-ratings by NPs of role support and role competency will be positively correlated.

Design

A cross-sectional survey design based on Dillman's (2007) Tailored Design Method was used to guide the development and distribution of the survey.

Participants

The target population was all NPs living in Canada who were licensed to practise in a province or territory and had indicated on their association registration form that they were interested in participating in research. Inclusion criteria were as follows: (1) fluency in English or self-identification of English as the language of contact, and (2) having practised as an NP in the previous 6 months. Since health policy, NP education, work settings, and conditions vary across the country, it was felt that the survey would be more representative of Canadian NPs if the target population was all NPs across Canada who met the inclusion criteria.

Possible participants were accessed through nine provincial or territorial nursing associations. The investigators adhered to provincial and territorial processes for distribution of the notification letter, survey, and reminders. NPs in Quebec were not included in the study because funds were not available for translation. At the time of the study, Yukon Territory did not have a legislated NP or equivalent role. For logistical reasons, the distribution process for Saskatchewan NPs could not be completed through the Saskatchewan Registered Nurses Association.

Data Collection

Data were collected using a mail survey. The survey included the Mental Health Problems Perception Questionnaire (MHPPQ) (Lauder et al., 2000), which was adapted to fit an NP sample, demographic information, and three open-ended questions. NPs were also asked to rate their knowledge of community resources for people with MH issues, their confidence in managing selected mental illnesses and conditions, and their theoretical and clinical MH/mental illness education. Details about the findings of this research can be found elsewhere (Creamer, 2011). The survey was reviewed for clarity by seven NP students and adjustments were made based on their recommendations. The students completed the survey in less than 15 minutes.

Four mailings were sent to potential participants over a 1-month period: a notification letter, a survey, a reminder letter, and a repeat survey. All the surveys were distributed in June and July 2009 except for those destined for the Northwest Territories (NWT) and Nunavut, which were distributed in August and September 2009 following an additional ethical review process. Surveys were mailed to 1,272 NPs and

765 (60.1%) were returned. Of the NPs who returned the survey, 85 did not meet the inclusion criteria, the primary reason being that they had not been in the NP role during the previous 6 months. A total of 680 eligible surveys were included in the study, for a useable response rate of 57.2%.

Measures

Lauder and colleagues (2000) adapted the Alcohol and Alcohol Problems Perceptions Questionnaire to test a model of therapeutic commitment among district nurses in Scotland (n = 82) who worked in rural settings with individuals with MH problems. This revised 27-item tool, the Mental Health Problems Perception Questionnaire (MHPPQ), consists of three subscales evaluating perceived levels of therapeutic commitment, role competency, and role support. The response options for each item range from *strongly disagree* to *strongly agree* on a seven-point Likert scale. Cumulative scores are obtained by summing the scores on individual items, with scores ranging from 13 to 91 for therapeutic commitment, 9 to 63 for role competency, and 5 to 35 for role support (after Cronbach's alpha testing on one item; see below). Higher scores represent higher levels of therapeutic commitment, role competency, and role support.

While Shaw and colleagues (1978) describe their theoretical framework for non-specialists working with individuals with alcohol problems as having individual dimensions, each measured on a subscale, Lauder and colleagues (2000) view therapeutic commitment as a unidimensional concept with the subscale totals being summed to yield an overall score. However, Gorman and Cartwright (1991) conducted a study comparing the total and individual subscale results for the AAPPQ after an alcohol educational intervention with members of a multidisciplinary team (n = 33). They found that generalizing changes in the total score to the therapeutic commitment subscale resulted in inaccuracies; individual subscale scores were impacted in relatively independent ways. Gorman and Cartwright recommend that the individual subscales be used unless the qualities of the data set are understood and the reason for using a total score is clear. No other study was found examining the impact of an intervention with nurses caring for individuals with MH problems on individual subscales and then analyzing which subscale had the greatest impact on the total MHPPQ score. Studies reporting the use of the model with nurses caring for individuals with MH problems discuss individual subscale scores rather than one total score (Angus, Lauder, & Reynolds, 2001; Lauder et al., 2000). For the reasons stated above, this study reports on the individual subscale totals.

In order to use this scale with an NP population, *Nurse Practitioner* was substituted for *District Nurse*. Construct validity, internal consistency, and

test-retest reliability of the MHPPQ subscales are supported in the literature (Angus et al., 2001; Lauder et al., 2000).

Question 26 of the MHPPQ, a role support item, reads, "When working with patients with [MH] problems I receive adequate supervision from a more experienced person." A footnote was added to explain that "supervision" meant access to support and education from an experienced colleague. Also, a footnote was added to item 15 to explain that the phrase "nursing problems" applied to the NP role. It was believed that these changes would have minimal impact on the psychometric properties of the scales.

Of note, one item (27), "When working with patients with [MH] problems I receive adequate ongoing support from colleagues," was scored on the therapeutic commitment scale. However, at face value it appears to fit into the role support scale. Using the results of this study, Cronbach's alpha was calculated for both the therapeutic commitment scale and the role support scale while including and then excluding item 27. For the therapeutic commitment subscale, Cronbach's alpha was 0.91 with item 27 and 0.92 without. Conversely, for the role support subscale it was 0.92 with item 27 and 0.91 without. Since the Cronbach's alphas were almost identical, item 27 was placed in the role support subscale. Cronbach's alpha for the role competency subscale was 0.90.

Ethical Considerations

Data collection commenced after ethical approval was granted by the university where the authors were based and by the participating provincial/territorial nurses' associations. The NWT's Aurora Research Institute required that the investigators obtain a licence to conduct research before approaching the territorial nurses' association. This called for a separate online application, ethical review, and a letter to the CEO of each NWT health district describing the proposed research. Once approval was granted, the Registered Nurses Association of Northwest Territories and Nunavut was approached.

Data Analyses

Prior to final analyses, the data were scrutinized; no pattern of unusable responses was noted. Strategies were developed to manage the few different types of ambiguous response. The mean of the relevant MHPPQ subscale was inputted where possible when data were missing (Penny & Atkinson, 2011). The results were analyzed in aggregate because some jurisdictions had a large number of participants while others had a very small number. This strategy addressed concerns about privacy and overrepresentation of certain groups in statistical analyses. Measures of central tendency (mean, median, mode) and dispersion (*SD,* range) appropriate

for levels of measurement are reported. Simple correlations and analyses of variance (ANOVA) were computed to examine relationships among variables. When a *sig*nificant *F* value was revealed, post hoc comparisons based on Bonferroni split of the alpha between different categories of the demographic variable were carried out. Analyses were conducted using SPSS 17.0.

Results

Participants

The majority of participants were women (n = 634; 93%) and worked full time (n = 551; 80.9%). Their mean age was 45.8 years (SD = 8.2). They had an average of 15.8 (SD = 8.2) years of experience as an RN prior to becoming an NP and 6.1 (SD = 4.6) years of experience as an NP (n = 657). More than half of the NPs identified primary care as their main work setting (n = 454; 57%); many had more than one setting. See Table 1 for additional demographic information. While 13 NPs (1.9%) reported MH/psychiatry as their current primary work setting, 126 (19.3%) had previous NP experience in an MH setting and 157 (23.1%) had other psychiatric/MH work experience, of whom 145 (21.3%) provided details. Settings where NPs cared for those with psychiatric/MH issues included prisons, emergency rooms, outposts (isolated northern communities), and inner-city street settings; these NPs also reported having consultancy and teaching roles.

NPs' Mental Health Work and Education

On Likert scales ranging from 1 *(not prepared)* to 5 *(very well prepared),* the mean rating was 2.6 (SD = .95) for how the NPs felt that their theoretical (n = 678) and clinical (n = 674) MH education had prepared them for MH work. NPs rated their knowledge about services offered by local public MH agencies as 3.4 and knowledge about other MH services, such as private counsellors and agencies, as 3.2. Over one third of the NPs spent more than 25% of their time working with persons with mental illness or their families. Many NPs indicated that they worked in more than one area; however, these NPs were too few in number to allow for meaningful analysis. The majority of participants (n = 387; 61.8%) reported consulting or collaborating with others regarding psychiatric issues at least once a month (see Table 1). Some (n = 21) reported not having access to psychiatric consultation or collaboration, while others (n = 28) reported that psychiatric consultation was available but not necessary. Almost two thirds (n = 441; 65.4%) had taken part in MH/psychiatric education sessions during the previous year (see Table 1).

Table 1 ***Demographics of Sample (N = 680)***

Variable	*n*	(%)
Province/territory	**680**	
Alberta	121	(17.8)
British Columbia	47	(6.9)
Manitoba	33	(4.9)
New Brunswick	36	(5.3)
Newfoundland and Labrador	23	(3.4)
Northwest Territories and Nunavut	17	(2.5)
Nova Scotia	39	(5.7)
Ontario	353	(51.9)
Prince Edward Island	1	(0.1)
Other[a]	10	(1.5)
Employment	**673**	
Full time	551	(81.9)
Part time	108	(16.0)
Other	14	(2.1)
% of time[b]	**675**	
0–10	215	(31.8)
11–25	226	(33.5)
26–49	141	(20.9)
50–75	51	(7.6)
> 75	42	(6.2)
Last MH education	**674**	
< 6 months	344	(51.0)
7–12 months	97	(14.4)
1–3 years	129	(19.1)
≥ 3 years	72	(10.7)
None	32	(4.2)
Previous NP work in MH	**653**	
None	527	(80.7)
< 2 years	50	(7.7)
2–5 years	39	(6.0)
≥ 5 years or more	37	(5.7)
Gender	**676**	
Female	634	(93.8)
Male	42	(6.2)
Work setting[c]	**797**	
Primary care	454	(57.0)
Geriatrics	52	(6.5)
Medical/surgical	42	(5.3)
Emergency	30	(3.8)
Ambulatory	28	(3.5)
MH/psychiatry	13	(1.6)
Chemical dependency	4	(0.5)
Nursing education	**676**	
Diploma	31	(4.6)
Baccalaureate	273	(40.4)
Master's degree	364	(53.8)
Doctorate	8	(1.2)
Previous RN work in MH	**665**	
None	520	(78.2)
< 2 years	63	(9.5)
2–5 years	28	(4.2)
5–10 years	28	(4.2)
≥ 10 years	26	(3.9)
Size of practice community	**662**	
< 10,000	156	(23.6)
10,000–29,999	85	(12.8)
30,000–99,999	94	(14.2)
100,000–499,999	138	(20.8)
500,000+	189	(28.5)
Frequency of consultation	**626**	
At least once a month	387	(61.8)
q 2–3 months	134	(21.4)
q 4–6 months	65	(10.4)
q 7–12 months	40	(6.4)

[a] Responses from outside Canada (not identified), responses from Canadian jurisdictions that were not included in the study, or more than one response recorded.
[b] Percentage of time working with persons with mental illness or their family members.
[c] Participants identified more than one work setting. Specific settings identified by more than 4% of participants and MH and chemical dependency settings are reported.

Therapeutic Commitment, Role Support, and Role Competency Scores and Correlations

For therapeutic commitment the mean score was 5.05 (SD = 0.83), for role competency 5.02 (SD = 0.88), and for role support 4.86 (SD = 1.27). Self-ratings by NPs revealed positive correlations between subscales of the MHPPQ: role support and therapeutic commitment (r = .357; $p < .001$), therapeutic commitment and role competency (r = .754; $p < .001$), role support and role competency (r = .418, $p < .001$). Thus all hypotheses were supported.

Analysis of MHPPQ Subscales and Other Variables

The three subscale measures were correlated with NPs' ratings of knowledge of local public services and other MH services, theoretical and clinical MH education, and years of experience as an NP (see Table 2). Having other psychiatric and MH work experience and age were correlated with therapeutic commitment and role competency but not with role support (r = .07). No correlations were found between the MHPPQ subscales and years of experience as a registered nurse.

Using ANOVA, differences in mean scores were not found between any of the MHPPQ subscales with respect to whether the NP worked part time or full time. Mean scores for therapeutic commitment (F [1, 629] = 11.91; $p < .01$) and role competency (F [1, 632] = 10.34; $p < .01$) for those with a baccalaureate degree were higher than for those with a master's degree as their highest level of nursing education. The mean ther-

Table 2 ***Correlations Between Knowledge, Experience, and MHPPQ Subscales (n = 649–667) Using Pearson's r***

Variable	Therapeutic Commitment	Role Competency	Role Support
Knowledge of local public MH services	.37**	.44**	.18**
Knowledge of other community MH services	.32**	.37**	.17**
Theoretical education	.33**	.41**	.14**
Clinical education	.34**	.42**	.17**
Years of NP experience	.18**	.18**	.09*
Other psychiatric/ MH work experience	.28**	.24**	.07

* $p < .05$ ** $p < 0.001$

apeutic commitment (F [1, 657] = 20.13; $p < .001$) and role competency (F [1, 660] = 22.34; $p < .001$) scores of those NPs who had prior experience working as an RN in an MH setting were higher than the scores of those with no experience. No difference was found in role support mean scores by RN work experience (F [1, 656] = 2.25; $p = .134$). Similarly, mean scores for therapeutic commitment (F [1, 646] = 56.02; $p < .001$), role competency (F [1, 648] = 49.10; $p < .001$), and role support (F [1, 645] = 11.81; $p < .01$) were higher for those with experience working as an NP in an MH setting, compared to those without.

Percentage of Time Working With This Population

Using one-way ANOVA, mean scores of therapeutic commitment (F [3, 667] = 52.74; $p < .001$), role competency (F [3, 671] = 38.08; $p < .001$), and role support (F [3, 667] = 4.58; $p < .01$) differed by amount of time spent working with this population. Generally, the more time NPs worked with persons with mental illness and/or their families, the higher their scores for therapeutic commitment, role support, and role competency. See Table 3 for significant differences among these and other categories of variable.

Frequency of Accessing Consultation or Collaboration

Mean therapeutic commitment (F [2, 618] = 32.62; $p < .001$), role competency (F [2, 621] = 25.72; $p < .001$), and role support (F [2, 618] = 15.18; $p < .001$) scores differed by frequency of accessing consultation or collaboration. NPs who accessed consultation or collaboration more frequently had higher scores for therapeutic commitment, role competency, and role support (see Table 3).

Size of NPs' Practice Communities

Mean scores for therapeutic commitment (F [6, 649] = 2.34; $p < .05$) and role competency (F [6, 652] = 2.59; $p < .05$) also differed by population size; no differences were found in mean scores for role support. Post hoc analyses revealed that mean scores for therapeutic commitment and role competency were higher for NPs who practised in communities with a population of 10,000 to 29,999 compared to those who practised in communities of 500,000 or more people.

Length of Time Since Last MH Education Session

Mean scores for therapeutic commitment (F [4, 664] = 25.33; $p < .001$), role competency (F [4, 667] = 32.25; $p < .001$), and role support (F [4, 663] = 6.55; $p < .001$) differed by length of time since last MH education session. Generally, NPs who had accessed MH education during the previous 12 months had higher mean scores (see Table 3).

Table 3 *Mean Scores for MHPPQ Subscales*

Variable	Therapeutic Commitment		Role Competency		Role Support	
	n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
% of time[a]						
0–10	211	4.58 (.73)★	214	4.56 (.88)★	211	4.64 (1.27)★
11–25	225	5.11 (.74)★	226	5.08 (.80)★	226	4.88 (1.25)
26–49	141	5.28 (.73)★	141	5.28 (.68)★	141	4.91 (1.12)
> 50	91	5.66 (.81)★	91	5.21 (.87)★	90	5.21 (1.48)★
Total	668	5.06 (.83)	672	5.01 (.88)	668	4.85 (1.27)
Frequency of consultation						
At least once a month	384	5.26 (.78)★	385	5.21 (.83)★	384	5.09 (1.26)★
q 2–3 months	130	4.93 (.75)★	131	4.96 (.77)★	129	4.77 (1.19)★
q 4–12 months	105	4.60 (.79)★	106	4.57 (.85)★	106	4.37 (1.17)★
Total	619	5.08 (.81)	622	5.05 (.85)	619	
Last MH education						
6 months	342	5.28 (.77)★	343	5.26 (.80)★	342	5.08 (1.27)★
7–12 months	95	5.22 (.70)★	96	5.23 (.69)★	97	4.83 (1.26)
1–3 years	128	4.75 (.79)★	129	4.81 (.80)★	128	4.68 (1.17)★
≥ 3 years	72	4.65 (.82)★	71	4.35 (.95)★	70	4.33 (1.21)★
None	32	4.32 (.80)★	32	4.17 (.84)★	32	4.68 (1.36)
Total	669	5.06 (.83)	672	5.02 (.88)	668	4.87 (1.27)

[a] Percentage of time working with persons with mental illness or their family members.
★ $p < .05$ for differences in responses to above variables based on multiple comparisons of significant F values (i.e., Bonferroni split).

Discussion

NPs in this study identified acceptable levels of therapeutic commitment, role support, and role competency when caring for individuals with MH problems. If the Therapeutic Commitment Model holds true, this suggests that Canadian NPs are making a positive difference in health outcomes. The findings also demonstrate that role competency, role support, and therapeutic commitment are correlated, providing further support for the relationships between the elements of the model.

Role competency and therapeutic commitment correlated strongly. However, NPs did not feel well prepared, from a theoretical or clinical perspective, to care for this population. This may have impacted how they perceived their role competency. With more than one third of participants spending at least a quarter of their time working with this population, it suggests that NP practice requires more MH preparation than is currently being provided. Similarly, 90% of NPs (n = 562) at two national NP conferences in the United States believed that the management of mental illness was important, yet only 22% felt they were well prepared, upon completion of their basic NP program, to manage mental illness (Hart & Macnee, 2007).

The incidence of mental illness and MH problems across the lifespan and in all areas of health care requires that NPs develop MH competency. This is in keeping with the call by the Canadian Association of Schools of Nursing ([CASN], 2012) for broad-based education that incorporates the requirements of the selected NP stream. However, a scan of 30 Canadian schools of nursing in 2006 found that 80% offered stand-alone undergraduate psychiatric nursing courses, the hours dedicated to theory ranged from 1.5 to 7.5 hours a week for 12 weeks, and the number of clinical hours ranged from 25 to 330 hours over 12 weeks (Tognazzini, Davis, Kean, Osborne, & Wong, 2009). This inconsistent approach to MH education suggests that many NPs are entering their NP education streams with significant deficits in MH knowledge and skills.

The practice of integrating psychosocial concepts, rather than specific MH or psychiatric concepts, into nursing education programs has been identified as an ineffective means of providing MH education (Wynaden, Orb, McGowan, & Downie, 2000). Additionally, time constraints and student NP clinical placements in general clinical settings may not permit adequate exposure to psychiatric conditions. To compound the problem, psychiatric concepts may be taught by non-psychiatric clinicians.

Of the three concepts, role support was rated the lowest by NPs, with the widest range of responses. This may have been due to a number of factors, including the tool itself. Role support items mentioned both personal and professional support, which may have introduced some confu-

sion into the survey. While an NP may be comfortable discussing patient-related issues with a colleague, such a relationship may not support discussion of personal challenges when working with this population. This concept requires more exploration. However, the wide range of responses indicates that some NPs did not feel supported in their roles when caring for this population, which could in turn impact the care provided. Several collaborative models of care are described in the literature, including approaches that address communication, co-location, and collaborative strategies and integrated teams (Flexhaug, Noyes, & Phillips, 2012). Linking NPs and students via supportive networks and encouraging employers and policy-makers to support the development of MH expertise are potential strategies for enhancing role support.

This study contributes to our understanding of factors linked to the elements of the model. Theoretical and clinical preparation, knowledge of MH community resources, ongoing MH education, and work experience predicted perceived levels of competency, support, and commitment to working with this population. These findings are similar to those of Clark, Parker, and Gould (2005), who found that previous psychiatric nursing experience predicted higher levels of role support and therapeutic commitment among a sample of registered nurses in Australia. Similarly, general practitioners in Quebec reported that continuing medical education related to mental illness, interprofessional relationships with other providers, and years since graduation influenced GPs' ability to take on the care of this population (Fleury, Bamvita, Farand, & Tremblay, 2008; Fleury, Bamvita, & Tremblay, 2009).

The reasons for higher levels of therapeutic commitment and role competency among those with a baccalaureate compared with a master's degree and those from smaller communities compared with much larger communities are not clear. It can be hypothesized that those with a higher level of education are more aware of what they do not know. However, this may be a naïve explanation. In terms of the influence of community size on the model, it may be that those working in smaller communities develop more MH competency and commitment because there are fewer resources to refer the person to. These are new areas for investigation and many questions were generated from the findings.

In terms of MH competencies, the CASN (2012) has identified the need for clinical competencies that integrate advanced clinical experience in collaboration with the client and the health-care team but has not provided specific clinical guidelines. NP curricula are expected to meet the competencies and standards of practice for each jurisdiction. Similarly, the Canadian Nurses Association (2010) has provided guidelines for the development of core competencies but these do not address recommendations for specific clinical areas. Among NPs in the United

States, the introduction of a core course addressing MH issues across the lifespan within an NP curriculum has been found to increase comfort levels with assessing common MH issues (Weber & Snow, 2006). Other options for promoting competency include developing and circulating lists of relevant learning opportunities for NP students and postgraduates (Cavanaugh, 2014). NP educators need to demonstrate competencies in core MH areas, and the Canadian NP examination must include questions that reveal the candidate's understanding of the issues and provide feedback to NP curriculum developers. Identification of champion leaders for nurses and NPs will raise the profile of this issue.

The Therapeutic Commitment Model described by Lauder and colleagues (2000) is seen as a "unidimensional concept," while in the Therapeutic Commitment Cycle (Shaw et al., 1978), a forerunner of the model, the concepts are seen as separate. In the present study the three components of the model — therapeutic commitment, role competency, and role support — are treated as individual components of a *therapeutic capacity* to care for persons with mental illness and MH problems. Use of the phrase "therapeutic commitment" for both the model and one of its subscales is confusing. In the interests of clarity, we suggest that the model be renamed the Therapeutic Capacity Model. Further studies could test the model to more clearly explicate the relationships among its concepts.

Limitations

This model has not been tested previously with NPs. However, the concepts of therapeutic commitment, role support, and role competency are highly relevant to NPs' practice. The small numbers of participants working with specific age groups did not allow for meaningful between-group analysis. The concept of role support must be studied further to explore the differences in levels of support available for personal and direct patient-related issues. The response rate may have been impacted by the timing of the survey distribution; most surveys were mailed at the end of the academic year, which coincided with the beginning of summer holiday season. However, the large number of respondents indicates NP interest in the topic and generalizability to the target jurisdictions. Surveys mailed to addresses in northern Canada arrived during a national immunization campaign, in which NPs in that area were likely to be fully engaged. The exclusion of NPs in Quebec, Yukon Territory, and Saskatchewan precludes generalizability of the results to NPs in these jurisdictions. The results may have been skewed by treating the responses in aggregate because of the unequal numbers of respondents in particular jurisdictions. It is not possible to identify geographical areas where NPs are achieving positive outcomes versus those where NPs require more education and support.

Conclusion

Intuitively, the concepts of therapeutic commitment, role support, and role competency are fundamental elements of a strong NP practice. In this study, NPs identified adequate levels of these concepts, and all three were found to be correlated, thereby supporting the Therapeutic Commitment Model. In particular, role competency was found to be strongly associated with therapeutic commitment. The Therapeutic Commitment Model theorizes that those whose practice includes higher levels of therapeutic commitment, role support, and role competency will achieve more positive patient outcomes; however, the strength of this relationship requires further study. The findings highlight the need to ensure that graduate NPs have achieved a clearly defined level of expertise through their education programs and have access to ongoing MH education and support in their role in order to promote commitment to providing health care for this population. It is incumbent on the nursing profession and individual NPs to ensure that NPs are practising at the highest possible level.

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Acknowledgements

This research was funded through a grant provided by MindCare New Brunswick.

The authors would like to thank Dr. Herb Northcott, University of Alberta; Dr. E. Di Tommaso, University of New Brunswick; Joanne Lewis, BN, MN; MindCare NB; Horizon Health Network; and Dr. W. Lauder and Dr. N. Angus, University of Stirling.

Conflict of interest: No conflict of interest has been declared by the authors.

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CJNR 2014, Vol. 46 Nº 4, 33–46

Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents: Psychometric Analysis of Instrument

Natalie Ann Fischetti

The study evaluates the psychometric properties of the instrument Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents. T2DM is on the increase among adolescents and there are no instruments to assess knowledge of risk factors in this population. The author revised parts of an adult instrument and reviewed the items for content validity. The final instrument, comprising 11 items, was administered to 225 high-school students 13 to 19 years of age in the New York City area. An exploratory factor analysis was conducted using maximum likelihood estimation and geomin rotation. Two factors were extracted. The overall reliability of the scale was found to be acceptable at .76. The instrument appears to be a promising tool for the evaluation of knowledge of risk factors for T2DM in adolescents.

Keywords: type 2 diabetes, risk factors, adolescents, instrument development

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CJNR 2014, Vol. 46 Nº 4, 33–46

Résumé

La connaissance des facteurs de risques en matière de diabète sucré de type 2 chez les adolescents : analyse psychométrique de l'instrument

Natalie Ann Fischetti

Cette étude évalue les propriétés psychométriques de l'instrument *Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents* [Connaissance des facteurs de risques en matière de diabète sucré de type 2 chez les adolescents]. Le taux de diabète sucré est à la hausse chez les adolescents et il n'existe aucun instrument pour évaluer la connaissance des facteurs de risques chez cette population. L'auteure a étudié et évalué certaines composantes d'un instrument pour adulte pour déterminer la validité du contenu. L'instrument final, qui compte 11 composantes, a été testé auprès de 225 étudiants du secondaire âgés de 13 à 19 ans, dans la région de la ville de New York. Une analyse exploratoire des facteurs a été réalisée selon une approche d'estimation du maximum de vraisemblance avec rotation Geomin. Deux facteurs ont été extraits. La fiabilité générale de l'échelle jugée acceptable a été établie à 0,76. Cet instrument semble être un outil prometteur pour évaluer la connaissance des facteurs de risques en matière de diabète de type 2 chez les adolescents.

Mots clés : diabète de type 2, diabète sucré, facteurs de risques, adolescents

In the past two decades, the incidence of type 2 diabetes mellitus (T2DM) among US and Canadian children and adolescents has risen (Panagiotopoulos, Riddell, & Sellers, 2013; Writing Group for the SEARCH for Diabetes in Youth Study Group, 2007). The SEARCH for Diabetes Study Group estimates that types 1 and 2 diabetes are diagnosed in as many as 1.84 per 1,000 youths, in comparison to cancer, which is diagnosed in 1.24 per 1,000 youths (SEARCH for Diabetes in Youth Study Group, 2006). In Canada, the incidence of T2DM is 1.54 per 100,000 children and adolescents (Panagiotopoulos et al., 2013). In addition, the magnitude of the T2DM epidemic in this population is underestimated because youths may have few if any symptoms and the blood tests needed for diagnosis are often not ordered. According to the Canadian Diabetes Association, family history of T2DM, ethnic minority status, inadequate physical activity, and obesity are risk factors for the development of T2DM (Panagiotopoulos et al., 2013). In adults, knowledge of these and other risk factors for T2DM has been linked to health-promoting behaviours that can reduce the development of T2DM (Janz & Becker, 1984). Thus, in adolescents, knowledge of the risk factors for T2DM may also be linked to health-promoting behaviours and reduced incidence of T2DM. Empirical data on adolescents' knowledge of T2DM risk factors is needed so that nurses can formulate evidenced-based educational programs in order to possibly delay or prevent T2DM in this population. The author developed this instrument for a larger study in order to explore knowledge of risk factors for T2DM in adolescents. The purpose of the study was to test the psychometric properties of the new instrument in the adolescent population in order to evaluate their knowledge of risk factors for T2DM.

Background and Conceptual Framework

Risk factors for T2DM in adults, adolescents, and younger children include ethnic minority status, obesity, sedentary lifestyle, and family history of T2DM (American Diabetes Association [ADA], 2014; Panagiotopoulos et al., 2013). Omolafe, Mouttapa, McMahan, and Tanjasri (2010) conducted a cross-sectional study to examine the relationship between knowledge of risk factors for T2DM in African Americans. They administered a self-report questionnaire, which included risk factors for T2DM, to 133 African Americans between the ages of 18 and 65 who did not have a diagnosis of T2DM. They found that 55 participants (41.4%) had a family history of T2DM while 78 (58.6%) did not. Those with a family history were more knowledgeable about the health benefits of a balanced diet ($\chi^2 = 4.35$, $p = .03$) and engaged in

more physical activity (M = 3021.8 MET-minutes/wk, SD = 1623.0 Mann-Whitney U = 1056.5, $p < .001$).

Chilton, Hu, and Wallace (2006) examined 40 Hispanic-American adults for knowledge levels regarding diabetes, including knowledge that a person who has a family member with diabetes is at greater risk for developing diabetes. The mean age of participants was 32.9 years. While participants had a low level of general knowledge regarding diabetes, more than half knew that if they had diabetes their children were at risk for developing T2DM.

Since family history of T2DM is a risk factor for developing diabetes, it is important to examine adolescents' knowledge of their own predisposition for T2DM. A family history in a first- or second-degree relative increases an adolescent's predisposition to diabetes (ADA, 2014).

Previous studies exploring adolescents' knowledge of risk factors for other diseases, including osteoporosis (Anderson, Chad, & Spink, 2005) and heart disease (Vale, 2000), found that adolescents and young adults have some knowledge of risk factors for specific diseases. In contrast, a study exploring knowledge of risk factors for cancer among Mexican adolescents found a low level of knowledge (Perez-Contreras et al., 2004).

The findings from the Child and Adolescent Trial for Cardiovascular Health (CATCH), a randomized controlled field trial of 5,106 schoolchildren in grade 3, demonstrated a significant relation between knowledge of risks for cardiac diseases and the risk-reducing benefits of a balanced diet (Luepker et al., 1996). This study was conducted in 96 public elementary schools in the United States. The schools were chosen based on ethnic diversity, willingness of food service departments to participate in the study, and proximity to one of the four field study centres. The intervention and control groups were randomized by school, for a total of 56 intervention schools and 40 control schools. The intervention groups were provided with information about cardiac risk (CATCH curricula) and healthier choices in terms of the food services program and the physical education curriculum. The control group received the health education and food service programs already in place. Adjusted means from repeated measures of analysis were done. When compared with the control group, the intervention group demonstrated a significant increase in dietary knowledge ($p < .001$) and a decrease in intake of total fat ($p = .001$), saturated fat ($p = .005$), and cholesterol ($p = .05$). A 5-year follow-up found that the total number of calories from both total and saturated fats had decreased from 31% to 10.4% (Osganian et al., 2003). These findings suggest that adolescents who are knowledgeable about the risk factors for T2DM may adopt or increase health-promoting behaviours.

The Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents instrument was based conceptually on portions of the Children's Health Belief Model (CHBM) (Bush & Iannotti, 1990), which incorporates elements of the Health Belief Model (Becker, 1974) and Cognitive Developmental Theory (CDT). When individuals are knowledgeable about risk factors, they are more likely to believe that they can reduce their own risk factors for disease. CDT "has influenced studies of children's understanding of illness related processes" (Bush & Iannotti, 1990, p. 70). The CHBM, meanwhile, posits that a cognitive attribute such as knowledge can influence children's understanding of their health and their health decisions.

Procedures for Instrument Development

An extensive literature review identified a number of studies that have developed instruments for other chronic diseases but no studies that have developed instruments to measure knowledge of risk factors for T2DM in adolescents. It identified one promising tool for adults, the Risk Perception Survey for Developing Diabetes (RPS-DD) (Walker, Kalton, Mertz, & Flynn, 2003), which measures personal risk perception and actual risk for developing diabetes. The RPS-DD is a large, 53-item scale consisting of four subscales that examine multiple dimensions of health risks. The Environmental Health Risk subscale contains questions about air pollution, pesticides, and second-hand smoke. The Comparative Disease Risk subscale asks about high blood pressure, cancer, stroke, and diabetes. The Optimistic Bias subscale asks about perceived risks for developing diabetes. The Personal Control subscale addresses personal control over developing diabetes. In addition to these subscales, the Diabetes Knowledge Risk scale asks about personal risk factors for diabetes. Several of the questions were adapted from the American Diabetes Association Diabetic Risk Test (Walker et al., 2003).

With the permission of E. A. Walker (personal communication, November 5, 2007) the RPS-DD was used as a model for this new instrument for adolescents. As with the RPS-DD, all questions developed for the new instrument, Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents, reflected the adolescent's knowledge of risk factors for T2DM. The Walker et al. (2003) instrument was reviewed and the subscale that had items related to knowledge of T2DM was chosen. Of the 10 items in the Walker et al. (2003) scale, nine were retained. The item "having had diabetes during pregnancy" was removed, since the instrument was intended for healthy adolescents who were not pregnant.

To estimate content validity, a draft of all the items in the new instrument was submitted to four experts: a researcher with expertise in pediatrics, a well-known expert in the field of psychological risk, a diabetes educator, and a physician with expertise in diabetes. These experts were asked to review each question for relevance, content, clarity, and age appropriateness. They suggested several modifications. The title of the instrument was changed to contain the phrase "type 2 diabetes" instead of "diabetes" alone, because two experts thought that failure to differentiate between type 1 and type 2 diabetes could substantially alter an adolescent's response. One expert recommended the addition of four questions related to metabolic syndrome: "having high blood pressure," "having high cholesterol," "having acanthosis nigrans," and "having polycystic ovarian syndrome." Changes suggested by the four content experts were made prior to testing of the instrument with high-school students. The final instrument for pilot testing consisted of 15 items.

Description, Administration, and Scoring of Instrument

The Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents scale was developed in English and is a 15-item pen and paper self-report questionnaire that takes approximately 5 to 10 minutes to complete. Each item was selected based on the CHBM, a review of the RPS-DD tool, and the American Diabetes Association's risk assessment for T2DM (Bang et al., 2009). Additional items addressing metabolic syndrome were added following a review of content validity by four content experts. The questionnaire includes a list of items that are considered risk factors for T2DM. The items are short, from two to six words, with the exception of those concerning acanthosis nigrans and polycystic ovarian syndrome; I believe that these two conditions require a definition for adolescent respondents. Following are three sample questions: "having most of your fat around your abdomen," "being Asian," "having acanthosis nigrans, a dark leathery area under your neck." For each item, the respondent was asked to choose one answer from among the following: "increases the risk," "has no effect on the risk," "decreases the risk," "don't know if it's a risk factor," "unfamiliar with the term used," "not applicable." An example of a "not applicable" item is "Polycystic Ovary Syndrome (PCOS)" if answered by a male, because the syndrome is found only in females. The answers were scored "1" for correct and "0" for incorrect. The possible range of scores was 0–15. The higher the summated score, the more knowledge the participant demonstrated about T2DM.

Sample

High-school students aged 13 to 19 were eligible to participate. Inclusion criteria were male or female adolescent between the ages of 13 and 19. Exclusion criteria were history of type 1 or type 2 diabetes, history of any chronic disease, and pregnancy.

The participants were recruited from two private, independent college-preparatory parochial high schools in the New York City area (one all-female with an enrolment of approximately 400 and one all-male with an enrolment of approximately 1,000). The participants self-selected using a recruitment letter describing the study to each student. Initially, 300 of the 1,400 students indicated an interest in participating. The final convenience sample consisted of 225 students enrolled in the two schools who volunteered to take part. This sample size is satisfactory for exploratory analysis (Polit & Beck, 2011). The sample included students from all four grades, 9 (n = 72), 10 (n = 65), 11 (n = 30), and 12 (n = 58), and consisted of 48 girls (21.3%) and 177 boys (78.7%) ranging in age from 14 to 19. The mean age was 15.65 years (SD = 1.278) (Table 1). Given the disproportionately large number of boys in the sample, an independent sample t test was conducted to evaluate whether there were significant gender differences. No significant differences were observed t (-.57) =17, $p < .32$; the data were combined and an exploratory factor analysis was conducted using maximum likelihood estimation and geomin rotation, to accommodate binary data.

Table 1 ***Demographic Characteristics***

Variable		Frequency	%
Sex	Male	177	78.7
	Female	48	21.3
	Missing	0	0
Grade	9	72	32.0
	10	65	28.9
	11	30	13.3
	12	58	25.8
Age	14	47	20.9
	15	68	30.2
	16	46	20.4
	17	40	17.8
	18	21	9.3
	19	1	0.4
	Missing	2	0.9

Methods

Institutional cooperation was secured from each high school and the study was approved by the Institutional Review Boards of Rutgers University, the State University of New Jersey, and City University of New York, College of Staten Island. Several hundred letters with assent and consent forms were delivered by the students in the two high schools to their parents describing the study and requesting parental consent and student assent. Participation was voluntary and anonymous. The instrument, Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents, and a demographic data sheet requesting information on the participant's age, sex, and grade were administered during homeroom period. Completion of the surveys took less than 10 minutes. Students who chose not to participate engaged in their usual activities. If students had questions, the researcher was available in the main office for consultation. The completed surveys were placed in a manila envelope by the homeroom teacher and the envelope was handed directly to the researcher.

Results

Since ordinary factor analysis cannot be computed reliably on dichotomous data, the research used the MPlus 7 program, which also accommodates dichotomous data because it uses probit and loglinear analyses (Muthén, 1978; Muthén & Muthén, 2012). An exploratory factor analysis was conducted using maximum likelihood estimation and geomin rotation, which accommodates dichotomous data. Follow-up item analyses (including alpha coefficients) of the items loading on each factor were computed. Kuder-Richardson 20 statistics and split half reliabilities were computed to test internal consistency of the factors. Means and standard deviations are reported.

Factor Analysis

All 15 items were subjected to exploratory factor analysis using MPlus 7. This analysis found that item 1 (Asian) and item 15 (PCOS) produced an empty cell, invalidating the results of the analysis. Therefore, item 15 was removed and another factor analysis using the first 14 items was conducted. Weighted least squares estimation and geomin rotation were used because these are binary items. Four factors were selected based on both chi-square tests of the model fit (χ^2 (41) = 49.73, p = .16) and the number of eigenvalues greater than 1. Factor loadings are presented in Table 2. The solution did not present clearly defined factors that had high loadings on only one factor (see Table 2). Upon examination of the

Table 2 ***Factor Loadings for Four-Factor Solution***

Item	Factor			
	1	2	3	4
5. Hispanic	0.972			
9. Native American	0.922			
4. Black	0.906			
1. Asian	0.849			-0.549
7. 65 years old	0.499	0.497		
10. Controlling weight gain		0.950		
8. Exercise regularly		0.906		
3. Healthy diet		0.843		
6. Blood relative		0.564		
12. Cholesterol		0.589		0.797
11. Blood pressure		0.503		0.639
2. Caucasian		0.396		
14. Acanthosis nigrans			1.469	
13. Fat around abdomen			0.340	0.351
% variance explained	26.0	27.8	17.2	11.0
KR-20	.75	.69		
Split-half reliability	.82	.78		

Notes: Total % variance explained = 82.0. Geomin rotation. Factor loadings less than .3 have been removed. Factor loadings, which represent beta weights in this type of factor analysis, can exceed 1.00. Split-half reliability was computed using the Spearman-Brown prophecy formula.

"cleanly" loading items and removal of items that loaded on more than one factor — items 1 (Asian), 7 (age 65), 11 (controlling BP), 12 (cholesterol), and 13 (fat around the abdomen) — and the selection of factors with eigenvalues over 2 reduced the data to nine items that loaded on primarily two factors. Another factor analysis was then preformed with weighted least squares estimation and geomin rotation, now with two factors. This solution produced a much cleaner set of factor loadings (Table 3), and the two factors explained a total of 65.32% of the variability in the scores. Factor 1 included items 5, 9, 4, and 1, which all related to ethnicity. Factor 2 included items 11, 8, 10, 3, 6, 7, and 13, items that reflected modifiable factors and medical conditions related to diabetes.

Table 3 ***Factor Loadings for Two-Factor Solution***

Item	Factor	
	1	2
5. Hispanic	0.968	
9. Native American	0.899	
4. Black	0.866	
1. Asian	0.809	
12. Cholesterol	-0.411	0.965
14. Acanthosis nigrans	-0.413	0.491
11. Controlling blood pressure		0.908
8. Exercise regularly		0.884
10. Controlling weight gain		0.781
3. Healthy diet		0.757
6. Blood relative		0.630
7. 65 years old		0.628
13. Fat around abdomen		0.548
2. Caucasian	⋆	⋆
% variance explained	26.82	38.50
KR-20	.76	.76
Split-half reliability	.81	.80

Notes: Total % variance explained = 65.32. Geomin rotation. ⋆ Factor loadings less than .3 have been removed. Split-half reliability was computed using the Spearman-Brown prophecy formula.

Items 12 (cholesterol) and 14 (acanthosis nigrans) were removed, since they loaded on both factors. Chi-square tests of model fit, however, were statistically significant (χ^2 (52) = 70.57, p = .04), which is interpreted as a poor fit with the data. This demonstrates that there is not full validation of the two-factor solution, but the loadings and the interpretability of the factors lend support to the two-factor solution over the four-factor solution (see Tables 1 and 2).

Reliability Analyses

Four-factor solution. Kuder Richardson-20 (KR-20) analyses were then computed for these groups of items for reliability. Factor 1: the KR-20 for items 4 (Black), 5 (Hispanic), and 9 (Native American) was .75, which

is an adequate range. This factor represents knowledge about ethnicity and diabetes. Factor 2: items 2 (Caucasian), 3 (healthy diet), 6 (blood relative), 8 (exercise regularly), and 10 (controlling weight gain) were used to compute a KR-20 of .69, almost adequate. Results indicated that removal of item 2 (Caucasian) would increase the value to .76, and therefore item 2 was eliminated. The final items included in factor 2 were 3, 6, 8, and 10, representing modifiable behavioural factors and medical conditions related to diabetes. Since only one item loaded on factor 3 and none remained on factor 4, further analysis was not computable for these factors (Table 2).

Two-factor solution. Kuder Richardson-20 analyses were conducted for the two-factor solution. Factor 1: the KR-20 for items 1, 4, 5, and 9 was in the acceptable range, .76. This factor represents ethnicity and diabetes, similar to the first factor in the four-factor solution. Factor 2: the KR-20 for items 3, 6, 7, 8, 10, 11, and 13 was also .76, indicating acceptable reliability (Table 3). This factor represents modifiable behavioural factors and medical conditions related to diabetes.

Split-half reliability. Split-half reliability using a Spearman-Brown correction formula was conducted for each reduced factor to further assess reliability of the factors. Alternating items were assigned to each half to mimic the traditional method of splitting a scale along odd- and even-numbered items. All split-half reliabilities for the four-factor solution were acceptable to good (factor 1: $r = .82$; factor 2: $r = .78$), and the split-half reliabilities of the two-factor solution were both in the good range (factor 1: $r = .81$; factor 2: $r = .80$). These results can be found in Tables 2 and 3.

Discussion

The psychometric properties of the new instrument to measure adolescents' knowledge of risk factors for T2DM indicate that it is a valid and reliable tool for use in research and clinical practice. The two-factor solution supported by factor analysis is consistent with the literature on T2DM (ADA, 2014). The reliability of the scale is acceptable, at .76 (Nunnally & Bernstein, 1994), and the split-half reliabilties are good for both factors, $r = .81$ and .80, respectively. Test-retest reliability was not assessed. Test-retest reliability examines the stability of characteristics over time. Knowledge acquisition is a cognitive measure that can change quickly; thus this test would not have been appropriate for the present study (Waltz, Strickland, & Lenz, 2005). With further refinement, the new instrument has the potential to become an even stronger and more useful instrument. Coefficient alphas for this study could not be compared to those for the RPS-DD study because that researcher did not report any coefficient alphas on the knowledge subscale for comparison.

Reading ease of the tool may also be a factor. The Flesch Kincaid grade level was determined to be at grade 10, which is considered a high grade level for instrument testing. Generally, it is recommended that multisyllabic words and long sentences be avoided (Polit & Beck, 2011). Most sentences were short but multisyllabic words were used for questions about medical conditions. Acanthosis nigrans, polycystic ovary syndrome, and cholesterol are all multisyllabic words and were removed during exploratory factor analysis. Since the sample consisted of high-school students, perhaps these participants did not identify with or understand the medical terms fully. These items could be replaced with words of fewer syllables. Further refinement of these questions is needed.

Limitations of the study include the fact that the sample came from two private, independent high schools, making the population homogeneous. The population was primarily Caucasian and the results may not be generalizable to all adolescent students. Further studies are needed to evaluate the instrument's psychometric properties with a more ethnically diverse population.

This instrument could be used by clinical nurses as a screening tool to assess the knowledge of adolescent patients regarding T2DM and then draw up a plan to inform and better educate them. It could also be used by school nurses as an assessment tool for knowledge of T2DM. Thereafter, an educational program could be developed based on the adolescents' level of understanding of T2DM.

Overall, the psychometric results demonstrate that Knowledge of Risk Factors for Type 2 Diabetes Mellitus in Adolescents is a promising short, easy-to-complete tool for evaluation of knowledge of risk factors. The instrument contributes to nursing science because it is the first to examine adolescents' knowledge of risk factors for T2DM. Further instrument studies are needed to improve the tool's psychometrics of medical conditions related to diabetes.

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CJNR 2014, Vol. 46 Nº 4, 47–64

Comparative Analysis of External Validity Reporting in Non-randomized Intervention Studies

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This article describes a comparative analysis of external validity reporting in non-randomized behavioural and public health intervention studies that used and did not use the TREND (Transparent Reporting of Evaluations with Non-randomized Designs) statement. The search resulted in 14 non-randomized intervention studies that were rated based on Green and Glasgow's criteria for external validity reporting. Studies that used the TREND statement demonstrated improved external validity reporting when compared with studies that did not use the TREND statement. The implication is that the TREND statement and Green and Glasgow's criteria can improve external validity reporting of non-randomized behavioural and public health interventions.

Keywords: TREND statement, external validity, comparative analysis, public health, non-randomized interventions

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Résumé

Analyse comparative d'établissement de rapports de validité externe dans le cadre d'études d'interventions non aléatoires

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Cet article présente une analyse comparative d'établissements de rapports de validité externe dans le cadre d'études d'interventions non aléatoires en matière de comportements et de santé publique faisant usage et ne faisant pas usage de l'énoncé TREND (Transparent Reporting of Evaluations with Non-randomized Designs). La recherche a relevé 14 études d'interventions non aléatoires, lesquelles ont été évaluées selon les critères de Green et Glasgow quant à l'établissement de rapports de validité externe. Les études ayant utilisé l'énoncé TREND ont démontré la présence de rapports de validité externe améliorés, en comparaison avec les études n'ayant pas fait usage de l'énoncé TREND. En conclusion, l'énoncé TREND et les critères de Green et Glasgow peuvent améliorer les rapports de validité externe d'interventions non aléatoires en matière de comportements et de santé publique.

Mots clés : énoncé TREND, validité externe, analyse comparative, santé publique, interventions non aléatoires

Introduction

The past two decades have seen the emergence of several guidelines aimed at enhancing the quality of reports of randomized controlled trials (RCTs), non-randomized experiments, systematic reviews, and meta-analyses. The TREND (Transparent Reporting of Evaluations with Non-randomized Designs) statement is used to enhance the quality of reporting in non-randomized intervention studies. However, its impact on external validity reporting is unclear. Therefore, this comparative analysis is intended to determine whether the use of the TREND statement enhances external validity reporting in non-randomized intervention studies. Both TREND and non-TREND studies are evaluated by external validity criteria recommended by Green and Glasgow (2006). Findings and implications for nurse researchers who are engaged in conducting, reporting, and evaluating studies involving non-randomized interventions are discussed.

Background

Investigators concerned with health promotion engage in clinical research in order to draw inferences from study findings about the nature of their surroundings. To interpret study findings, two sets of inferences are commonly used. The first, known as *internal validity,* is the extent to which correct conclusions are drawn about what actually happened in an experiment, while the second, *external validity* (i.e., *generalizability*), is the extent to which the findings can be applied to situations outside the experiment (Hulley, Cummings, Browner, Grady, & Newman, 2006). To enable an accurate interpretation of findings, a study must first have strong internal validity, which is achieved through a strong relationship between its research operations built upon good choice of study design, outcome measurement, and representative sampling. It is for this reason that researchers and journals give precedence to internal validity and scientific rigour instead of generalizability of findings (Ferguson, 2004). This practice jeopardizes translation of research into practice in applied disciplines such as medicine, public health, and nursing, which are concerned with health promotion and improving the health of the public (Steckler & McLeroy, 2008).

Balas and Boren (2000) claim that it takes several years to translate even small amounts of original research into interventions that enhance patient care. They attribute this delay partly to the inadequacy of how health-care providers are assisted in assessing the strengths of study results and applying them to practice. Over the past decade, since the introduction of the CONSORT (Consolidated Standards of Reporting Trials)

statement, aimed at improving the quality of reporting of RCTs (Begg et al., 1996), there has been an increased focus on the methodological quality of research reports (Moher et al., 2010). However, reporting criteria of the CONSORT statement emphasize internal validity while they do not address external validity in its entirety (Glasgow et al., 2006). Reviews show that lack of discussion on external validity disadvantages judgement around the potential effectiveness of interventions and their applicability to practice (Glasgow, Klesges, Dzewaltowski, Bull, & Estabrooks, 2004). Therefore, there is a need to strengthen the reporting of generalizability of research findings (Ferguson, 2004).

Given that RCTs are not always feasible and may not be ethical within public health (Victora, Habicht, & Bryce, 2004), the TREND statement was developed to improve the quality of reporting of non-randomized evaluations of behavioural and public health interventions (Des Jarlais, Lyles, Crepaz, & TREND Group, 2004). After its publication, the statement drew immediate praise from the editors of several journals (Caetano, 2004; Kirkwood, 2004; Ross, Elford, Sherr, & Hart, 2004; Treasure, 2004). However, it was criticized for its limited external validity criteria, which were viewed as insufficient for reporting and evaluating the generalizability of study results (Dzewaltowski, Estabrooks, Klesges, & Glasgow, 2004). The critics insisted on additional criteria related to external validity. Green and Glasgow (2006) later addressed this concern by proposing criteria for external validity reporting (Table 1).

Purpose

Since its introduction in 2004, the TREND statement has been used by several researchers as a guideline for reporting of studies involving non-randomized designs. To the best of our knowledge, the impact of the use of TREND statement guidelines on external validity reporting of non-randomized intervention studies has not been reported in the literature. Therefore, the purpose of this comparative analysis was to fill the gap, with three objectives:

(1) review selected reports claiming to have used the TREND statement as a guideline (i.e., TREND studies) and evaluate the extent to which these studies report external validity
(2) review selected recent reports that did not use the TREND statement as a guideline (i.e., non-TREND studies) and evaluate the extent to which these studies report external validity
(3) offer a comparative overview of external validity reporting of both TREND and non-TREND studies.

Table 1 ***External Validity Reported by TREND and Non-TREND Studies***[a]

Criteria for External Validity Reporting[b]	TREND		Non-TREND	
	n	%	*n*	%
Reach and representativeness				
Participation	7	100	6	86
Target audience	7	100	7	100
Representativeness – settings	6	86	6	86
Representativeness – individuals	7	100	7	100
Implementation and adaptation				
Consistent implementation	5	71	2	29
Staff expertise	5.5	79	4	57
Program adaptation	5	71	3	43
Mechanisms	2.5	36	0	0
Outcomes for decision-making				
Significance	7	100	5.5	79
Adverse consequences	4.5	64	1.5	21
Moderators	5	71	0.5	7
Sensitivity	7	100	4.5	64
Costs	4	57	2.5	36
Maintenance and institutionalization				
Long-term effects	2	29	2	29
Institutionalization/sustainability	5.5	79	4	57
Attrition	6.5	93	4.5	64
Mean	**5.4**	**77**	**3.8**	**54**

[a] Scores based on mean of two raters, who independently rated all studies listed in Table 2.
[b] Criteria for external validity reporting based on recommendations of Green and Glasgow (2006).

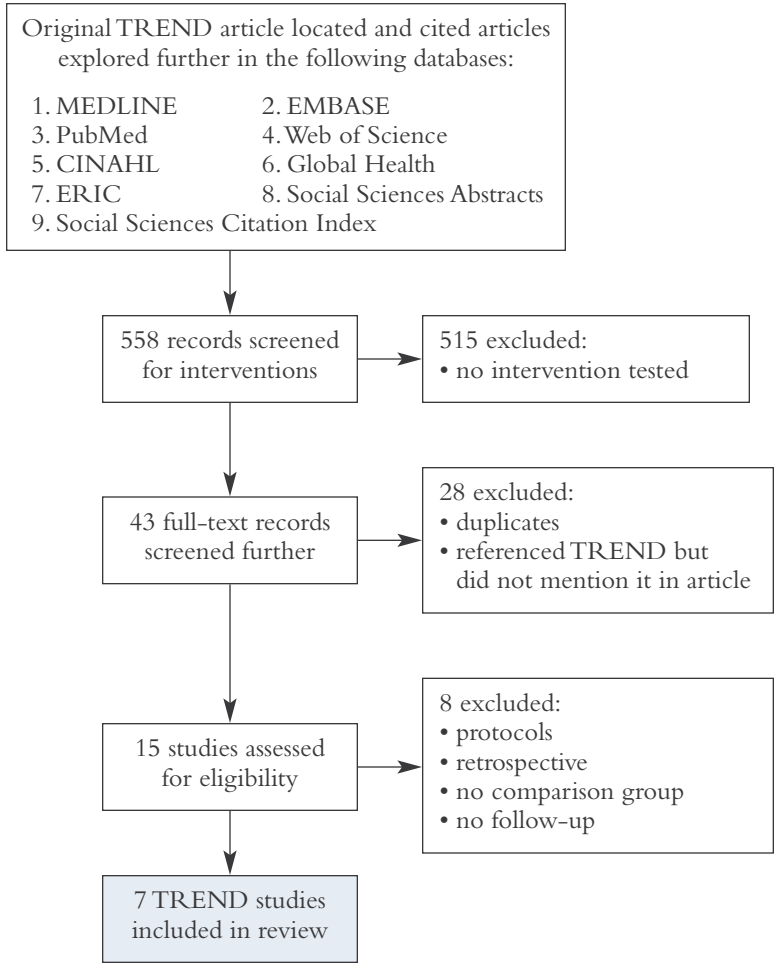
Literature Search

TREND Studies

Before the literature search was carried out, it was decided that the analysis would focus on prospective non-randomized intervention studies with a comparison group and a follow-up. No date limitations were set when searching for TREND studies, because the TREND guideline was published in 2004. The original TREND article by Des Jarlais et al. (2004) was sought in several databases (Figure 1), after which its citations (i.e., articles citing the original TREND article) in each database were examined. The combined search resulted in 558 records, 515 of which were excluded because the studies were not intervention studies. Of the

remaining 43 records, 28 were excluded because either they were duplicates or they cited the TREND guidelines without mentioning, discussing, or declaring whether or not the TREND guidelines were used for reporting. This resulted in 15 records, eight of which were excluded because they either were study protocols, used retrospective study designs, had no comparison group, lacked follow-up, or referred to their post-test as follow-up. The result was a total of seven TREND studies being included in the analysis.

Figure 1 ***Search Strategy for TREND Studies***

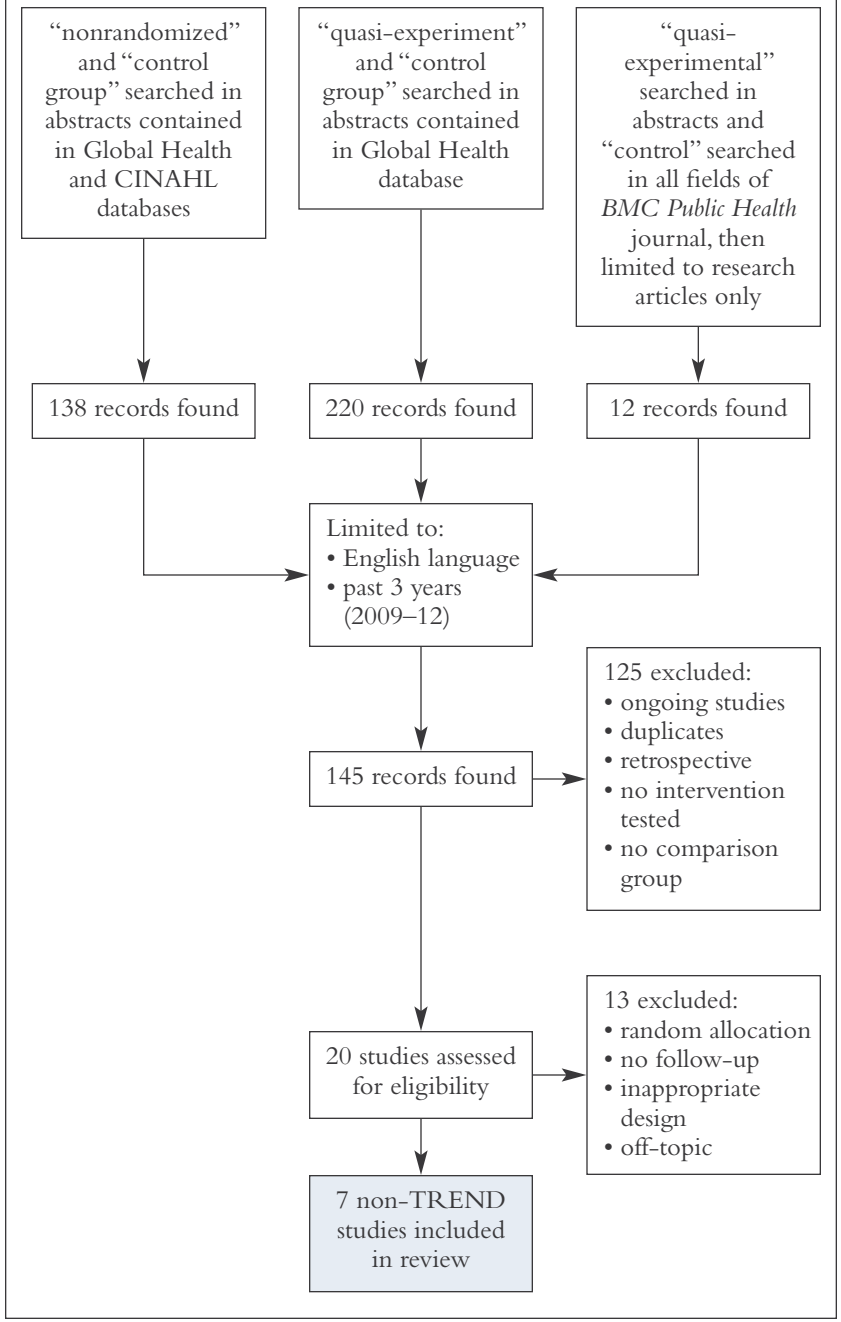


Non-TREND Studies

To compare the seven TREND studies with non-TREND studies, seven non-TREND studies were sought. Selection criteria for non-TREND studies were similar to those for TREND studies (i.e., non-randomized intervention studies with control group and follow-up). While the search for TREND studies permitted studies dating back to 2004 (when the TREND guidelines were published), only recent non-TREND studies were obtained. This was done by examining the most recent studies first and then moving back in time until seven non-TREND studies were obtained. The reason for using recent studies was based on two assumptions: that reporting of research studies will improve over time and recent study reports will represent improved trends in reporting; and that the 5-year span from 2004 (when TREND guidelines were published) to 2009 was sufficient to allow for the uptake of such guidelines by the research community. Therefore, recent studies were limited to those published in 2009 or later.

Since the TREND statement was developed initially for behavioural and public health interventions, popular nursing and public health databases were selected (i.e., Global Health, CINAHL). Key terms such as *nonrandomized* and *control group* were used in study abstracts contained in CINAHL and Global Health databases (Figure 2). This resulted in 138 records. The term *quasi-experiment* was also used in the Global Health database, which generated 220 records. Furthermore, the term *quasi-experiment* was also used in the *BMC Public Health* journal since this was a common journal among the selected TREND studies. This search generated 12 records. All 370 records were limited to the English language and to publication as early as 2009. This resulted in 145 records, 125 of which were excluded because they were ongoing studies (incomplete), used retrospective design, did not test an intervention (e.g., survey), had no comparison group, or were duplicate records. Of the 20 remaining records, 13 were excluded because they had randomized allocation, lacked follow-up, had an inappropriate design (e.g., mentioned quasi-experiment but were cross-sectional studies), or strayed from the theme of behavioural and public health interventions. Coincidentally, this search also resulted in seven non-TREND studies published from 2009 to 2011. If there had been more or fewer than seven non-TREND studies, the year of publication would have been adjusted to 2010 or 2008, respectively, in order to yield a comparable number of TREND and non-TREND studies for the analysis.

Figure 2 ***Search Strategy for Non-TREND Studies***



Data Evaluation

To assess the external validity of studies used in the analysis, Green and Glasgow's (2006) criteria for external validity reporting were utilized by two raters, who rated all studies independently. Both raters were nurses. One had a doctorate and the other was completing a doctorate. Each rater read each study twice. During the first reading, raters scored the studies based on Green and Glasgow's criteria (Table 1). To score all these studies, a simple dichotomous scale (0 = *unreported*; 1 = *reported*) similar to the TREND checklist was employed. Studies were then read for the second time to double-check initial ratings and to seek any necessary clarification.

The choice of Green and Glasgow's (2006) proposed criteria for external validity was based on recommendations by the TREND Group (personal communication, 2012). These criteria have previously been used as a gold standard (by Klesges, Dzewaltowski, & Glasgow, 2008). As outlined in Table 1, Green and Glasgow's criteria consist of (a) *reach and representativeness,* (b) *implementation and adaptation,* (c) *outcomes for decision-making,* and (d) *maintenance and institutionalization.* Each of these four criteria comprises several attributes that a research study must include. For the purpose of the comparative analysis, a checklist with a dichotomous rating scale was developed based on all of the 16 attributes of Green and Glasgow's four criteria for external validity reporting. The rating scale was then used to rate all TREND and non-TREND studies.

Results and Analysis

All 14 studies included in the analysis reported non-randomized evaluations of behavioural and public health interventions. Both TREND and non-TREND studies were conducted in different parts of the world, with the majority originating in the United States. Most studies evaluated an intervention comprising some form of education aimed at promoting healthy behaviours (e.g., smoking cessation). Target populations ranged from children to older adults, with both males and females represented. Study participants were often allocated geographically (e.g., comparing participants in two different cities), while alternating allocation techniques were also employed (e.g., comparing participants in one setting but during different periods).

Overall, all reports based on the TREND guidelines made reference to the TREND statement but offered no further discussion about its usefulness or how each of its dimensions was addressed. Of the seven TREND studies, two recruited control and intervention participants in different years and one used non-participant controls. The remaining four were similar to all of the seven non-TREND studies in that they con-

Table 2 ***External Validity Scores of Reviewed Studies***[a]

	Evaluation Score	
	n	**%**
TREND Studies		
Ciliberto et al. (2005)	12	75
Fisher, Wynter, & Rowe (2010)	11.5	72
Giangregorio et al. (2009)	13	81
Oupra, Griffiths, Pryor, & Mott (2010)	12.5	78
Sorensen et al. (2010)	12.5	78
Storro, Oien, Dotterud, Jenssen, & Johnson (2010)	13.5	84
Taylor et al. (2008)	11.5	72
Mean	**12.4**	**77**
SD	**0.75**	**–**
Non-TREND Studies		
Cardarelli et al. (2011)	9	56
Chan et al. (2011)	11	69
Elmasri (2011)	5.5	34
Kwak, Kremers, Visscher, van Baak, & Brug (2009)	9.5	59
Lv & Brown (2011)	5.5	34
Ma et al. (2009)	8.5	53
Wolfers, de Wit, Hospers, Richardus, & de Zwart (2009)	11	69
Mean	**8.6**	**54**
SD	**2.30**	**–**

[a] Scores based on mean of two raters, who independently rated studies based on Green and Glasgow's (2006) criteria for external validity reporting outlined in Table 1.

sisted of parallel control and intervention groups that progressed simultaneously. Table 1 summarizes the scores and percentages of external validity reporting of both TREND and non-TREND studies based on Green and Glasgow's (2006) criteria, while Table 2 summarizes the extent to which TREND and non-TREND studies addressed Green and Glasgow's criteria for external validity reporting.

Overall, all studies lacked full reporting of external validity criteria and presented limited discussion on generalizability. Across all 16 external validity criteria, mean reporting for TREND and non-TREND studies was 12.4 (SD = 0.75) and 8.6 (SD = 2.30), respectively. A non-parametric test (i.e., Mann-Whitney) indicated that this difference was statistically significant (p = 0.0017). To check for agreement between the scores of the two raters who independently rated each study, the Intraclass Correlation Coefficient (ICC) was calculated to be 0.86 (95% CI: 0.69, 0.97). This indicated strong interrater reliability.

Criterion 1: Reach and Representativeness

All TREND and non-TREND studies described the target audience and compared study participants with the target population, while one TREND and one non-TREND study did not report on the intended settings nor compare them with those settings that declined participation. Furthermore, while all TREND studies discussed participation rates of eligible persons, one non-TREND study did not report participation rate.

Criterion 2: Implementation and Adaptation

While five TREND studies (71%) reported on the consistency of implementation of the various intervention components and the extent to which study settings adapted the intervention program to fit their settings, only two non-TREND studies (29%) reported this information. None of the non-TREND studies (0%) reported the mechanisms through which the intervention achieved its effect. This, however, was reported by a few TREND studies (36%). Moreover, most TREND studies (79%) and several non-TREND studies (57%) presented data on staff expertise (i.e., level of training, level of expertise, quality of implementation, etc.). In relation to program adaptation, five TREND studies (71%) and three non-TREND studies (43%) reported on adaptation.

Criterion 3: Outcomes for Decision-Making

While at least four TREND studies (57%) reported on all attributes of *outcomes for decision-making,* only a few non-TREND studies (21%) reported one attribute, such as adverse consequences and moderator effects. Information on two attributes (i.e., sensitivity and significance) was provided by all TREND studies (100%). These two attributes were reported in several (> 64%) non-TREND studies. In the TREND group, there was fair reporting of cost, moderator effects, and adverse consequences by more than half of the studies (> 57%). However, these attributes were poorly reported in the non-TREND studies, with fewer than three reporting cost (36%), adverse consequences (21%), and moderator effects (7%).

Criterion 4: Maintenance and Institutionalization

Although all studies consisted of a follow-up, only two TREND studies (29%) and two non-TREND studies (29%) conducted a 12-month follow-up. In the TREND studies, follow-up ranged from 8 weeks to 2 years (8 weeks = 1 study, 3 months = 2 studies, 6 months = 2 studies, 2 years = 2 studies) with an average of 9.7 months. In non-TREND studies, this range was from 4 weeks to 2 years (4 weeks = 1 study,

3 months = 1 study, 4 months = 1 study, 6 months = 2 studies, 1 year = 1 study, 2 years = 1 study) with an average of 8 months. Furthermore, several TREND studies (79%) and non-TREND studies (57%) reported on sustainability or evolution of the program implemented as part of the intervention. Lastly, most TREND studies (93%) and several non-TREND studies (64%) reported attrition and presented some basic discussion on reasons why participants dropped out.

Discussion

A comparison of seven TREND and seven non-TREND studies is an encouraging step towards promoting external validity reporting. In this analysis, we discovered that the majority of TREND and non-TREND studies did not address Green and Glasgow's (2006) criteria for external validity reporting. The TREND Group (personal communication, 2012) views these criteria as crucial for future policy decisions and knowledge translation efforts. This analysis also highlights the lack of external validity reporting in recent non-randomized intervention studies, which could limit appropriate translation of interventions to real-life situations.

In an attempt to compare external validity reporting, this analysis shows that, compared with non-TREND studies (54%), TREND studies (77%) scored significantly higher on Green and Glasgow's (2006) criteria for external validity reporting. This illustrates that the use of the TREND statement promotes increased external validity reporting. Table 1 indicates that this difference could be due to the TREND statement's ability to draw researchers' attention towards specific external validity criteria that are important for generalizing study findings. Hence, the TREND statement, as a leap towards a systematic method of reporting, appears to promote external validity reporting in non-randomized intervention studies.

While TREND studies succeeded in reporting several criteria for external validity, there are a few areas that were not reported by several studies. These include (a) mechanisms, (b) adverse consequences, (c) costs, and (d) long-term effects.

Although the TREND statement has received criticism regarding its external validity criteria, it is important to note that the statement includes several internal validity criteria that, if reported, would also strengthen a study's external validity reporting. This is visible in Table 1, which shows that non-TREND studies performed poorly in reporting the external validity criterion of *outcomes for decision-making* while TREND studies succeeded in addressing this criterion. While many attributes under *outcomes for decision-making* (e.g., significance, adverse consequences, and moderator effects) do not correspond to criteria under

the "generalizability" section of the TREND checklist, they can be found elsewhere within the checklist, under headings intended to strengthen internal validity reporting.

This illustrates that complete use of the TREND statement can encourage the reporting of many internal validity components (e.g., significance, adverse events, implementation of intervention, moderator effects, expertise, participants, setting, cost) that can directly address Green and Glasgow's (2006) criteria for external validity reporting. While all TREND studies made the claim that they used the TREND guidelines, they did not indicate how or to what extent. Improved external validity reporting among TREND studies could have resulted from the focus on several previously discussed internal validity criteria that directly influence Green and Glasgow's criteria for external validity reporting.

Implications

This comparative analysis of TREND and non-TREND studies has several implications for the research community. Nurse researchers considering the TREND guidelines are encouraged to thoroughly discuss how and to what extent they used the TREND guidelines, and to pay particular attention to each of its criteria for external validity reporting. Nurse researchers must also be aware of and address these criteria when preparing study protocols before actual research is conducted. In addition to the TREND guidelines, Green and Glasgow's (2006) external validity criteria should be considered in reports. This approach will enhance external validity reporting in journal articles and will promote subsequent knowledge translation efforts.

Dzewaltowski et al. (2004) and Steckler and McLeroy (2008) advocate for a greater emphasis on external validity reporting in journals of applied disciplines that aim to improve the health of the public. The various characteristics of external validity recommended by these authors resemble Green and Glasgow's (2006) external validity criteria, which, along with the TREND guidelines, should be considered by researchers of all health disciplines when conducting, reporting, or evaluating nonrandomized intervention studies. It is important for health researchers to report on all criteria or state that information is unavailable on criteria that may not be applicable to their research study. This can help nurses, other health-care practitioners, and policy and administrative decision-makers to determine whether or not a given study's findings are generalizable and applicable to their local population and setting.

Findings of this comparative analysis can be used by the TREND Group to make revisions to the original TREND statement to reflect external validity criteria that emphasize and strengthen generalizability of study findings and the use of research findings in real-life situations.

Since clinicians in the public health sector often conduct non-randomized research that evaluates behavioural and public health interventions, it is important that they be aware of the usefulness of the TREND statement (Des Jarlais et al., 2004) and the external validity criteria proposed by Green and Glasgow (2006). Nurse researchers are encouraged to build partnerships with nurses and policy developers in order to address real-life problems and facilitate appropriate knowledge translation efforts.

Although Green and Glasgow's (2006) criteria do not focus on the type of intervention reported, they do focus on whether the treatment was consistently administered, whether there were any adverse reactions, what the cost was, what the long-term effects were, the attrition rate, and how the intervention was sustained. All of these factors are important when reporting intervention studies, because they allow readers to determine whether the findings can be generalized to their environment. When reports do not address such criteria, it is difficult for readers to decide whether the study intervention is suitable for their environment. Therefore, researchers are encouraged to use the TREND guidelines when reporting non-randomized intervention studies.

While use of the TREND guidelines promotes external validity reporting, single-study results must be used with extreme caution. Should nurses and policy and administrative decision-makers discover that a study report is applicable to their population and setting, they must still explore and rely on synthesized results of several research studies prior to disseminating findings in the practice setting. The use of one study and its findings is insufficient and the combined results of several well-conducted studies must be considered when making decisions around the usefulness of research and its possible effectiveness in the practice setting.

Although tools to evaluate external validity reporting are useful, the final decisions around the translation of research into practice are based on judgements of health professionals and policy and administrative personnel who understand the characteristics of people and settings outside the study experiment and are able to make accurate judgements about the applicability of research findings and their sustainable potential. Therefore, there is a need for creative solutions aimed at expanding evidence in certain areas. This analysis indicates that two areas where evidence must be expanded are the long-term follow-up of studies and the sustainability of intervention programs in institutions.

Nursing and health journals that welcome reports on intervention studies are encouraged to request that authors consider the TREND statement and relevant external validity criteria before submitting reports of non-randomized intervention studies for publication. This requirement could be incorporated into author guidelines published by journals.

Often, limited funding and urgency to publish research results prevent the conduct of studies with long-term follow-up to evaluate intervention sustainability. For this reason, nursing and health journals are also encouraged to offer researchers a venue for publishing follow-up reports on studies of interventions after an initial study has been reported. Furthermore, funding agencies are encouraged to consider providing increased support for long-term follow-up studies that allow researchers to evaluate the institutionalization and sustainability of interventions (Klesges et al., 2008).

This analysis is the first attempt to compare TREND and non-TREND studies reporting non-randomized intervention studies with a control group and follow-up. Increased utilization of the TREND guidelines is encouraged. This will increase the number of TREND studies, which could then be used in a future analysis similar to the one presented here. With more studies using the TREND guidelines, future reviewers will have more reports from which to choose and more opportunities to set further inclusion and exclusion criteria, which could ensure that selected TREND and non-TREND studies are more comparable in terms of treatment, setting, and population.

Limitations

There were several limitations in this analysis. First, there were other studies that utilized the TREND statement that were not included in the analysis, mainly because they employed a cross-sectional or time-series study design or were pre-post study designs without comparison or control groups. Therefore, this analysis lacks discussion on external validity reporting of these other studies that also used the TREND guidelines.

Second, all TREND studies briefly mentioned, in a sentence, that the TREND statement was used as a guide. However, they failed to provide further discussion on the TREND statement, which made it difficult to determine whether or not the TREND statement was useful in promoting external validity reporting of non-randomized intervention studies.

Third, although the focus of the TREND statement is not to test education interventions, some studies used the TREND guidelines for health education interventions. While this association was not explained, it is possible that use of the TREND guidelines could be expanded beyond health-related disciplines to include research studies from the social sciences and humanities.

Fourth, studies were evaluated based on a dichotomous scale, while a Likert-type scale would have been more appropriate for studies that partially met criteria for external validity reporting.

Finally, the number of studies used also influenced the analysis since small changes caused large fluctuations in percentages. Therefore, caution

is advised when generalizing the findings of this analysis. With increasing use of the TREND statement, it is recommended that a similar analysis be conducted in a few years with a larger number of TREND and non-TREND studies.

Conclusion

This comparative analysis highlights the lack of external validity reporting among non-randomized intervention study reports in the medical, nursing, and public health literature. Findings from this analysis demonstrate that use of the TREND guidelines improves external validity reporting of studies that do not use these guidelines. As a result, nurse researchers are encouraged to consider the TREND guidelines when reporting non-randomized intervention studies. It is also recommended that criteria for external validity reporting based on the work of Green and Glasgow (2006) be added to the TREND statement in order to promote external validity reporting by nurse researchers. Future non-randomized intervention study reports that succeed in addressing these external validity criteria will not only enhance generalizability, but also enrich evidence-informed decision-making and facilitate more appropriate translation of research findings into clinical practice.

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CJNR 2014, Vol. 46 Nº 4, 65–82

Workforce Integration of Philippine-Educated Nurses Who Migrate to Canada Through the Live-in Caregiver Program

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Nurses who migrate through the Canadian Live-in Caregiver Program face significant barriers to their subsequent workforce integration as registered nurses in Canada. This study applies the concept of global care chains and uses single case study methodology to explore the experiences of 15 Philippine-educated nurses who migrated to Ontario, Canada, through the Live-in Caregiver Program. The focus is the various challenges they encountered with nursing workforce integration and how they negotiated their contradictory class status. Due to their initial legal status in Canada and working conditions as migrant workers, they were challenged by credential assessment, the registration examination, access to bridging programs, high financial costs, and ambivalent employer support. The results of the study are pertinent for nursing policymakers and educators aiming to facilitate the integration of internationally educated nurses in Canada.

Keywords: immigration, internationally educated nurses, live-in caregivers, nurse migration, health human resources, Philippines

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CJNR 2014, Vol. 46 Nº 4, 65–82

Résumé

L'intégration à la population active des infirmières formées aux Philippines et qui migrent au Canada par l'intermédiaire du programme des aides familiaux résidants

Bukola Salami, Sioban Nelson, Linda McGillis Hall, Carles Muntaner, Lesleyanne Hawthorne

Les infirmières qui migrent par l'intermédiaire du programme canadien des aides familiaux résidants font face à des obstacles importants après leur intégration à la population active en tant qu'infirmières au Canada. Cette étude applique le concept de chaînes mondiales des soins et utilise une méthodologie fondée sur l'étude de cas unique pour explorer le vécu de 15 infirmières formées aux Philippines et qui ont migré en Ontario, au Canada, par l'intermédiaire du programme des aides familiaux résidants. L'étude se penche notamment sur les divers défis qu'elles ont dû relever dans le cadre de leur intégration en milieu de travail infirmier ainsi que sur la façon dont elles ont composé avec leur niveau de classe contradictoire. En raison de leur statut juridique au Canada et de leurs conditions de travail en tant que travailleuses migrantes, elles ont dû surmonter les obstacles que représentaient l'évaluation de leurs titres de compétences, l'examen d'accréditation, l'accès aux programmes de transition, les coûts financiers élevés et le soutien ambivalent d'employeurs. Les résultats de l'étude offrent de l'information pertinente aux décideurs et aux éducateurs qui œuvrent pour la profession infirmière et pour l'intégration des infirmières formées à l'étranger au Canada.

Mots clés : infirmières formées à l'étranger, chaîne mondiale des soins, aides familiaux résidants, Philippines, intégration en milieu de travail, programme de transition

Background and Literature Review

Internationally educated nurses represent 7% of Canada's nursing workforce (Canadian Institute for Health Information [CIHI], 2013). Researchers have discussed the barriers that many face in becoming registered nurses (RNs) in Canada, including challenges related to communication, credential assessment, costs of the examination and credential assessment process, and difficulty passing examinations (Blythe, Baumann, Rheaume, & McIntosh, 2009; Hawkins, 2013; Jeans, Hadley, Green, & Da Prat, 2005; Sochan & Singh, 2007). Furthermore, immigration status poses a barrier for internationally educated nurses, especially for those migrating not as nurses but under the Live-in Caregiver Program (Bauman, Blythe, Rheaume, & McIntosh, 2006; Sochan & Singh, 2007).

The Live-in Caregiver Program is a migration stream that allows individuals to migrate temporarily to Canada to provide care to the elderly, children, the sick, and the disabled while living in the client's home (Citizenship and Immigration Canada, 2013). The program was implemented in 1992 as a successor to the Foreign Domestic Worker Program. After a minimum of 22 months of work as a live-in caregiver, these migrants qualify to apply for permanent residency. While they are employed as live-in caregivers, any educational courses they take must be related to their work, be taken on a full-fee basis, and be no more than 6 months in duration. As of December 1, 2012, there were 19,830 live-in caregivers in Canada (Citizenship and Immigration Canada, 2013).

Over 30% of internationally educated nurses (CIHI, 2013) and 85% of live-in caregivers (Kelly, Astorga-Garcia, Esguerra, & Community Alliance for Social Justice, 2009) in Canada are from the Philippines. In fact, the Philippines has an explicit policy to "over-produce" professionals as an export commodity, ensuring that a high number of migrants contribute to remittances that boost the Philippine economy (Rodriguez, 2002). In the year 2011, $1.921 billion in remittances was sent from Canada to the Philippines (World Bank, 2012). The number of nursing training schools in the Philippines has increased rapidly to satisfy this export policy (Lorenzo, Galvez-Tan, Icamina, & Javier, 2007). Masselink and Lee (2010) argue that the proliferation of schools of nursing in the Philippines, often in the minimally quality-assured private sector, has had detrimental effects on the quality of educational programs in the country. The policy has produced 400,000 Philippine-educated nurses who are not working as professionals in the Philippines or internationally, a source of concern in terms of skill wastage (Kanchanachitra et al., 2011). A significant proportion of these nurses have been deskilled to work as caregivers or domestic workers in destination countries (Choo, 2003).

There is evidence indicating that nurses migrate to Canada through the Live-in Caregiver Program (Kelly et al., 2009; Zaman, 2006). However, data on the specific number of nurses who migrate through this stream are quite mixed. Kelly et al. (2009) estimate that 23% of live-in caregivers are health professionals, including 7% who are nurses. Bourgeault et al.'s (2010) survey of 75 migrant care workers across Canada providing low-skilled elder care, including live-in caregivers and personal support workers, found that 44.12% were nurses prior to migrating to Canada. Despite these statistical inconsistencies, what is established and (consistently) supported by all researchers is that most individuals who migrate through the Live-in Caregiver Program have a baccalaureate degree, that nurses migrate through the program, and that health professionals (including nurses) who migrate through the program come mainly from the Philippines (Bourgeault et al., 2010; Kelly et al., 2009; Zaman, 2006). Hawkins (2013) found that nurses who migrate from the Philippines to British Columbia as live-in caregivers use the program as a "stepping stone" to gain entry to Canada. These nurses, however, experience systemic barriers to nursing workforce integration and struggle to regain their professional identity (Hawkins, 2013; McKay, 2002; Philippine Women Centre of B.C., 2001).

The present study adds to the literature on internationally educated nurses by providing an in-depth perspective on the specific barriers to workforce integration faced by internationally educated nurses who migrate to Canada through the Live-in Caregiver Program.

Theoretical Framework

The feminist concept of global care chains that was developed by the sociologist Arlie Hochschild (2000) provides a context for explaining the international migration of care workers; it refers to personal links across the globe based on engagement in the paid and unpaid work of caring. The concept illustrates the transfer of care work from the South to the North and has been used to theorize the movement of domestic workers (Hochschild, 2000; Parrenas, 2001) and nurses (Yeates, 2009). Parrenas (2001) argues that domestic workers often experience contradictions in class mobility — that is, a decrease in social status coupled with an increase in income — when they leave the weak economies of the South as skilled workers to work in the strong economies of the North as domestic workers.

The present study sought to answer the following research question: *How do Philippine-educated nurses who migrate to Ontario through the Live-in Caregiver Program experience contradictory class mobility, and how do they resist or negotiate this experience?* In negotiating and resisting their contradictory

status in their destination countries, domestic workers experience several barriers. The focus of this study is the barriers such workers face in nursing workforce integration as they negotiate and resist their contradictory class status in Canada.

Methodology

The study used a single case study design, a method considered appropriate when *how* and *why* questions are being posed about a contemporary phenomenon in a real-life context (Yin, 2009). The unit of analysis for the study was nurses who migrated to Ontario through the Live-in Caregiver Program between 2001 and 2012. After ethics approval for the study was obtained from the University of Toronto Research Ethics Board, 15 internationally educated nurses who migrated to Ontario through the Live-in Caregiver Program and four nurse educators were interviewed. It was hoped that the interviews would shed light on nurses' struggle to establish their professional status in Canada, once eligible to do so. The participants were recruited through an educational service provider and newspaper advertisements. Their informed consent was obtained. The interviews lasted between 45 and 90 minutes. In line with Sandelowski's (1995) recommendation, the sample size was based on the adequacy of the data, in that data collection ceased when data saturation was reached. A semi-structured interview guide was used. The interview guide for the live-in caregivers included questions related to their career plans upon completion of the Live-in Caregiver Program, actions they took to become a nurse in Canada, the challenges and barriers they faced and the resources they used in doing so, and what/who was helpful to them during the process of registration.

All interviews were audiorecorded and all participants completed a demographic profile that included information on their education and experience. All interviews but one were conducted in person. One interview with a live-in caregiver was conducted over the telephone as the participant lived in a remote area of Ontario. Three interviews with nurse educators were conducted at their place of employment, while one was conducted at the University of Toronto. Nine interviews with live-in caregivers were conducted at their weekend place of residence, while others were conducted at diverse locations chosen by the participant. In line with the wishes of some participants, the first nine interviews with live-in caregivers were conducted while another person was present at the interview location; the context ranged from having someone (e.g., an observer) present at the interview to having someone in the next room of the apartment. Similarly, D'Addario (2013), in interviews with live-in caregivers, and Hawkins (2013), in interviews with nurses who had

migrated to British Columbia as live-in caregivers, found that this group of migrants often felt more comfortable being interviewed in the presence of a peer. Later interviews were conducted without a peer present, as participants increasingly felt comfortable with the researcher. Considering that ethics is a process in qualitative research (Morse, Niehaus, Varnhagen, Austin, & McIntosh, 2008), consent was renegotiated throughout the research process.

Method triangulation was used to strengthen the rigour of the study, by combining data from interviews with nurses and educators with analysis of immigration and nursing policy documents. Also, the researcher paid close attention to issues of power and her biographic position in the field by keeping a reflexive journal (Finlay, 2002). The interviews were transcribed verbatim and analyzed using thematic analysis, aided by NVivo 10 qualitative software. Fictitious names are used to disguise the participants' identities.

Results

All 15 participants had completed a 4-year baccalaureate degree in nursing in the Philippines, although their predominant last country of residence before migrating to Canada was in the Middle East. Eleven of the participants had first worked in Saudi Arabia — being well remunerated but with no scope for permanent resident status or pension access. Pre-migration nursing specialties of participants included pediatrics (n = 3), emergency room (n = 3), neonatal intensive care (n = 2), medical-surgical (n = 2), nursing administration (n = 2), public health (n = 2), general medicine (n = 2), intensive care unit, nephrology, post-anesthetic care, psychiatric nursing, hematology/oncology, and operating room nursing. Some participants had nursing experience in multiple specialty areas prior to migrating to Canada (as detailed above). All participants resided in the province of Ontario. They had lived in Canada from 3 months to 10 years. The range of challenges they faced in becoming a nurse in Canada included contradictory support from employers, difficulties with credential assessment, barriers in access to bridging programs, high financial costs, and difficulty passing the language and registration examinations.

Contradictory Employer Support

The relationship between employers and live-in caregivers influenced their nursing workforce integration in Canada. The employers of Bridget, Emily, Josephine, and Kristine were supportive of their plans to re-enter the nursing profession, encouraging them and providing flexibility in their work schedules. Employers could discourage career mobility by

being inflexible with work arrangements. Danielle and Emily both noted that employers play a critical role in caregivers' ability to establish registered nursing careers in Canada:

> *I think the number one factor that can lead you to your success is the employer that you have. If the employer is trying to put you really down, it affects your plans.* (Danielle)

Participants reported that sometimes even an otherwise "good" employer can be caught between wanting to help their caregiver become a nurse in Canada and wanting to retain a good live-in caregiver. This ambivalence is reflected in Amy's experience:

> *My employer was really good. They were nice people to me. . . . But . . . thinking of [my] leaving them is really painful for them. And then when I was talking about my assessment, about taking my courses in college, they always felt nervous that I would leave them sooner. . . . But she is not selfish.* (Amy)

Both Amy and Grace felt that they had good employers who valued them as caregivers. However, pursuing a nursing career signified an impending end to a good employer–employee relationship. None of the participants was interested in continuing to work for her employer or in home care (even as a nurse) after qualifying to work as a nurse in Canada. Their goal was to work in a hospital and gain Canadian citizenship for themselves and their families.

Difficulties With Credential Assessment

In order to commence the registration process, participants had to have their education and work documents verified. The two major issues with credential assessment were obtaining documentation of their previous work experience and having their education in the Philippines considered equivalent to that in Canada. Participants consistently described how difficult it was to get documents from the Middle East. This inability to procure documents hampered the participants from undertaking the registration process expeditiously. Grace, who had worked in Saudi Arabia for over 10 years, discussed her challenges with employment verification:

> *Because Saudi, they don't want to give any information even though I work there. That is just what we want for the verification of employment, just for them to tell that, yes, you worked here for 10 years in this area, from this period to this period. . . . And until now, I started my assessment . . . they didn't complete it. That's why that keeps me. . . . They cannot assess me as an RN, so I apply to be assessed as a RPN [registered prac-*

tical nurse]. At least as a RPN, they will consider me without that verification of employment. That is 13 years gone. (Grace)

The participants also faced challenges in meeting the educational requirements for registration in Ontario. In the Philippines, they explained, nurses who graduate from colleges or universities complete a 4-year education program and receive a degree. But the nursing regulatory body in Ontario rates internationally educated nurses from the Philippines differently based on the school they attended and year of graduation:

I don't have any idea that the colleges and the universities are different here, unlike in the Philippines. . . . In the Philippines, if you graduate [from a] college or a university, it is the same. We have the same curriculum. . . . But for me it is really disappointing, because they think that if you graduated from college . . . it's much lower than if you graduated from the university. (Amy)

Two Philippine-born educators confirmed that internationally educated nurses from the Philippines tend to be assessed as RPNs rather than as RNs. The rationale provided by nurse educators is that elementary and secondary school education lasts 10 years in the Philippines, compared to 12 years in Canada. Nurse educators speculated that the assessment of nurses from the Philippines as practical nurses may be due to this difference in elementary and secondary education:

I think one of the challenges with respect to Philippine education is [that], until last year, we only had the equivalent of grade 10 in secondary education . . . There was no grade 11 or 12. And my understanding is that, because of this situation, there's that gap in our educational system which results in credentials of Filipino nurses being evaluated as generally equivalent to a diploma. (Nurse Educator 3)

This difference in equivalency assessment was stressful for these nurses since they were unaware that they would be assessed differently based on the type of postsecondary schooling (i.e., college versus university) they received before migrating to Canada.

Barriers in Access to Bridging Programs

Once live-in caregivers complete the assessment process, they often need to take extra courses to be able to register as a nurse in Canada. This is because new nurse registrants in Ontario must demonstrate having practised as a nurse within the previous 5 years plus have permanent resident status or authorization under the *Immigration and Refugee Protection Act* to become registered in Canada. Given the time it takes to become a per-

manent resident and subsequently become a nurse in Canada, live-in caregivers often need to enrol in bridging programs to prepare for safe practice in Ontario. Enrolling in education programs is especially important due to the loss of nursing skills over time:

> *Not every time you are exposed to medical problem, right? The one you learned will be [out of date]; it is going to be rusty, isn't it? There are so many modern techniques now . . . compared to the last time you worked. Think, for 7 years you are not exposed to that. Imagine, even if you attend these seminars, still it is not sufficient, right?* (Irene)

Moreover, because of a recent policy change, new nurse registrants in Ontario are required to demonstrate safe nursing practice within the last 3 years. Since it takes 2 to 4 years to complete the requirements of the Live-in Caregiver Program and 3 to 7 years to become a permanent resident in Ontario, this means that since January 2013 almost all internationally educated nurses who migrate as live-in caregivers are required to complete bridging programs. The study participants, who were interviewed between February 2012 and October 2012, were unaware of the proposed change even though it would affect their ability to practise in Ontario. Nurse educators, however, *were* aware of the proposed change and identified issues that nurses/live-in caregivers might face:

> *CNO has changed [its criteria for demonstrating] safe practice. It was 5 years and it's now dropped to 3. What [will] that do to the people that come in as caregivers? I wonder about them. It's going to put [internationally educated nurses who migrate as live-in caregivers] more in jeopardy.* (Nurse Educator 4)

Even though most nurses/live-in caregivers are required to enrol in bridging programs, they experience difficulty in doing so because they often work 12 hours a day, 5 days a week. They are available to attend bridging classes only on weekends, yet government-supported bridging programs often are available only during the week. Amy experienced barriers in accessing bridging programs because of the schedule of such programs:

> *The thing is my time. The thing is, you know, I am a live-in caregiver. I'm still working as [a] nanny, so it's 5 days per week. The colleges, they didn't offer a lot of subjects during the weekend, so I need to take it during weekdays. So, the problem is, how can I take those things during weekdays when I have a job?* (Amy)

The participants also reported that they were not allowed to take education courses of more than 6 months' duration, as these exceed the time limit set by the Live-in Caregiver Program. This means that

nurses/live-in caregivers must wait until they complete the Live-in Caregiver Program before enrolling in bridging courses.

High Financial Costs

Barriers to completing nursing registration are compounded by financial concerns. At a minimum, the costs related to securing registration in Ontario are as follows: $678 to apply for credential evaluation as an RN; $542 to write the Canadian Registered Nurse Examination (each time); $40 to write the jurisprudence exam; $231.65 to register with the College of Nurses of Ontario (initial registration); and $300 to write the English-language exam (College of Nurses of Ontario, 2013). These costs amount to approximately $1,800. Participants stated that they earned between $1,000 and $1,300 per month. They also had to pay for the bridging program courses. For those working as live-in caregivers or employed with an open work permit, educational service providers for bridging programs charge international student fees, an amount typically between $11,000 and $15,000 per year, which generally exceeds what a live-in caregiver earns in a year; this means that, even though live-in caregivers can take bridging courses while on an open work permit, it is unaffordable for them so they must wait until they receive permanent resident status to enrol in a bridging program at a lower (domestic) fee level.

Providers of bridging programs for internationally educated nurses in Canada also commented on the financial burden for live-in caregivers:

> *I've had a few international students [including live-in caregivers] . . . enrol in our program, and the cost is almost three times [higher than for a Canadian resident] . . . For live-in caregivers who are on open work permit or work permit–general, it's still a barrier to pay humungous fees knowing that live-in caregivers generally still look after family back home. . . . It's basically asking them to give me your money . . . for the whole year.* (Nurse Educator 2)

Live-in caregivers are already financially pressured by the need to send remittances to their country of origin and the fees related to sponsoring their families as immigrants to Canada. Although a program run by the Registered Nurses Foundation of Ontario provides financial assistance to internationally educated nurses, live-in caregivers do not qualify for this assistance until they become permanent residents of Canada.

Difficulty Passing Nursing and Language Examinations

In order to complete the nursing registration process and become a qualified nurse in Ontario, all internationally educated nurses must complete the Canadian Registered Nurse Examination or the Canadian Registered

Practical Nurse Examination, as well as an English- or French-language exam. Passing the nursing registration exam was a challenge for some of the study participants. Difficulty passing the nursing exam is compounded by the fact that live-in caregivers work long hours and are unable to study except on weekends. The long period of separation from clinical practice (typically between 3 and 7 years) also made it difficult to pass the nursing registration exam in Canada.

Language competency further inhibited the ability of these nurses to pass the nursing exam. One former live-in caregiver who had been successful in becoming an RPN in Ontario said that she failed the nursing registration exam once, then wrote the language exam, which helped her to pass in her second attempt at the nursing registration exam. Her advice for internationally educated nurses who are in the process of becoming nurses in Ontario was to focus first on improving their English-language skills:

> *I will tell them that this is my experience and then give them advice on what to do first, because I have been there. Like, taking the English test first. . . . I already took [the nursing registration exam] first, but I failed, so I concentrated on doing the English test while at the same time reviewing for my next test. So at that time I pass my English and after a few months I pass my CNO [nursing exam].* (Michelle)

Michelle was convinced that passing the language test helps internationally educated nurses to pass the nursing registration exam and reduces the length of time it takes to become registered as a nurse in Canada.

Discussion

Limited data are available on the international migration of nurses as domestic workers in destination countries. The findings from this study reveal contradictions in class mobility as Philippine nurses migrate to Canada to work as live-in caregivers (that is, as members of the working class); their perceived social status in the Philippines rises (by virtue of being employed in Canada), while their social status and income in Canada fall in relative terms. This change in class is especially stark considering that a significant number of the participants had experience working as an RN in the Middle East. The downward occupational mobility constitutes a symptom of unequal relations between the sending country (i.e., the Philippines) and the receiving country (i.e., Canada) (Hochschild, 2000; Sassen, 1997).

Several new insights have been gained by exploring the experiences of this group of internationally educated nurses as they integrated into the health-care workforce in Canada, notably the role played by

employers in facilitating or impeding their careers and particular barriers related to obtaining verification of employment from the Middle East and being able to access bridging programs on evenings and weekends. Additional barriers to workforce integration faced by nurses who migrated to Canada through the Live-in Caregiver Program resulted from policies of the program itself, especially their lack of permanent resident status.

Credential verification is identified in the literature as a major challenge to the integration of internationally educated nurses in their destination countries. However, in addition to credential equivalence assessment, the emphasis in the literature is on procuring documents (especially educational documents) from the country of origin (Jeans et al., 2005; Newton, Pillay, & Higginbottom, 2012). The present study sheds light on a stepwise migration pattern and points to a greater challenge for this group of internationally educated nurses: securing employment documents from the transit destination in the Middle East. All of the nurses who had work experience in Saudi Arabia commented on their inability to secure the information and documentation that the College of Nurses of Ontario required to credit their work experience in Saudi Arabia.

Another issue with credential assessment identified by the participants was the difference in assessment based on school and year of graduation, which resulted in downward occupational mobility after completion of the Live-in Caregiver Program. Philippine-educated nurses are increasingly becoming registered as RPNs rather than RNs in Ontario (College of Nurses of Ontario, 2013). In fact, while the Philippines remains the top source country for applicants to the College of Nurses of Ontario (Office of the Fairness Commissioner, 2013), it is the second source country for individuals who become RNs, because Philippine-educated nurses predominantly become accredited as RPNs (College of Nurses of Ontario, 2013).

Congruent with the downgrading trend in credential assessment, Valenzuela and Caoili-Rodriquez (2008) point to issues of quality in education programs in the Philippines. According to these authors, there is a wide range in the quality of education programs in the Philippines due to the low percentage (19%) of accreditation among programs offered by institutions of higher learning. The issue of quality assurance may be a contributing factor in the differences in the assessment of qualifications of these internationally educated nurses upon their arrival in Canada. The educators interviewed in the present study alluded to the fact that one of the reasons why degrees earned in the Philippines are assessed as diploma-equivalent is that elementary and secondary education in the Philippines lasts 10 years, whereas in Canada it lasts 12 years.

In 2012 the Philippine government instituted a 12-year elementary and secondary education system, which should allow sufficient time for the mastery of concepts and skills as well as allow Filipinos to better compete in the global market (Department of Education, Government of the Philippines, 2012).

In response to the difference in credentials of internationally educated nurses, the College of Nurses of Ontario has partnered with the Centre for the Education of Health Professionals Educated Abroad to create the Internationally Educated Nurses Competency Assessment Program (Centre for the Education of Health Professionals Educated Abroad, 2013). Instituted in 2013, the Competency Assessment Program assesses internationally educated nurses using an objective structured clinical examination (OSCE) and a multiple-choice examination to assess the knowledge, skills, and communication abilities of internationally educated nurses before they are provided with a "letter of direction" by the College of Nurses of Ontario.

In response to the body of research on barriers to workforce integration of internationally educated nurses (Blythe et al., 2009; Jeans et al., 2005), several bridging and upgrading education programs have been instituted in Ontario to ease the path of these nurses. While these programs have had tremendous success in integrating internationally educated nurses into the health-care workforce in Ontario, those who migrate through the Live-in Caregiver Program are unable to fully benefit from them. This is because they are not permitted to take courses unrelated to their work as live-in caregivers, nor are they permitted to work in the nursing profession until they have completed the Live-in Caregiver Program. A source of great frustration for several of the live-in caregivers interviewed was the schedule of courses in the bridging program: most are offered during working hours on weekdays, when they are unable to attend, rather than weekends and late evenings. The Canadian Association of Schools of Nursing (2012), in its *Pan-Canadian Framework of Guiding Principles and Essential Components for IEN Bridging Programs,* identifies the need to make bridging programs more flexible and accessible by offering online and distance education opportunities. Findings from the present study support the need to offer bridging program courses in the evenings and on weekends to accommodate this group of nurses.

The federal government has implemented pre-arrival outreach programs to facilitate the integration of internationally educated nurses. However, these programs often do not effectively reach internationally educated nurses who migrate to Canada as live-in caregivers. For instance, to address the pre-migration issue of immigrants lacking knowledge about the Canadian labour market, Citizenship and Immigration

Canada has instituted the Canadian Immigrant Integration Program. This program delivers in-person pre-departure orientation services to potential immigrants (such as nurses) and includes online support from the program's partners in Canada (Canadian Immigrant Integration Program, 2014). However, only applicants to the Federal Skilled Worker Program or the Provincial Nominee Program are eligible for this program; live-in caregivers are ineligible.

Implications

While several measures were taken to increase the quality of the study, representatives of nursing regulatory bodies were not interviewed. Also, the sample comprised 15 live-in caregivers and four nurse educators. Although sufficient data were collected based on Sandelowski's (1995) recommendation regarding sample size in qualitative research, and consistent with qualitative research methodology in the critical social paradigm, a positivist orientation to sampling might consider the sample size to be small. Given the qualitative research methodology used, the utility of the study should be seen in light of its transferability rather than its generalizability.

Despite its limitations, the study suggests several areas for reform that could be of interest to nursing policy-makers, nursing educators, and researchers aiming to improve the integration of this group of nurses. First, given the increasing transnational migration of nurses, better communication among nursing regulatory bodies in various countries could facilitate the integration of internationally educated nurses. The difficulty in obtaining the required documentation from Saudi Arabia illustrates this need. Second, the gaps between nursing policy and immigration policy demonstrate the need for nursing policy-makers to consider the global context of migration and the multiple migration pathways followed, as well as the influences of immigration pathways on the integration of nurses in destination countries. The recent change in the requirement for entry into practice in Ontario, for demonstration of evidence of recent safe nursing practice from 5 years to 3, and its consequences for this group of migrants, who are often out of practice for over 3 years, highlights the need for effective policies and programs to promote integration.

While much progress has been made recently by policy-makers in nursing education, including the creation of bridging programs, more can be done to ensure access to programs, such as by providing flexibility in the scheduling of bridging programs (by offering courses evenings and weekends) and securing funding to cover the cost of bridging programs. Since live-in caregivers are not able to easily access bridging and upgrading programs due to the prohibitive cost, nursing educators should consider applying the domestic student rate to this group.

Given the increasing interrelatedness of nursing regulations across Canada, as reflected in the implementation of the *Labour Mobility Act* (Nelson, 2013), comparative research across the provinces on internationally educated nurses (especially those who migrate through the Live-in Caregiver Program) would be useful in the development of best practices for Canada-wide integration. Finally, while there have been several studies on the experience of internationally educated nurses after they have become registered in Canada, no study has focused on the experience of internationally educated nurses who have been out of practice for a long period (such as live-in caregivers). Such research would deepen our understanding of how to leverage existing human resource skills to Canada's benefit.

Finally, on October 31, 2014, the Canadian government announced changes to the Live-in Caregiver Program (Citizenship and Immigration Canada, 2014). The government has eliminated the live-in requirement of the program and changed its name to the Canada Caregiver Program. Individuals who migrate through the new Canada Caregiver Program can choose to live in or live out of the home of their employer. They are allowed to work in home care or in health-care facilities for the elderly. In the future, more internationally educated nurses will migrate through this program, as the government has now created a pathway for caregivers in health-care occupations as part of the program. Half of individuals who migrate through Canada's Caregiver Program in the future will be health-care workers, including nurses. However, there continue to be gaps between this new immigration policy and nursing policy, such as the need to demonstrate 3 years of safe nursing practice, which may affect those who migrate through this stream. Given the projected increase in the number of health professionals who migrate through Canada's Caregiver Program, immigration and nursing policy-makers should consider the barriers that this group of nurses will face in integrating into Canadian society, including contradictory support from employers, difficulties with credential assessment, barriers in access to bridging programs, high financial costs, and difficulty passing the language and registration examinations. Implementing policies to address these barriers will enable this group of nurses to better contribute to the Canadian health-care system and to economic life in Canada.

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Acknowledgements

This article is based on the findings of the lead author's doctoral research on the migration of nurses from the Philippines to Canada through the Live-in Caregiver Program. For the study, Bukola Salami received funding from the Social Sciences and Humanities Research Council of Canada, the Ontario Training Centre for Health Service and Policy Research, the Ontario Graduate Scholarship, and internal awards at the Lawrence S. Bloomberg Faculty of Nursing, University of Toronto.

The authors wish to acknowledge the assistance provided by Lydia Belita with data collection for the study.

Conflict of interest: The authors declare that there are no conflicts of interest.

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CJNR 2014, Vol. 46 Nº 4, 83–100

A Critical Perspective on Relations Between Staff Nurses and Their Nurse Manager: Advancing Nurse Empowerment Theory

Sonia Udod, Louise Racine

This study considers empowerment in nurse–manager relations by examining how conflict is handled on both sides and how the critical social perspective has influenced these relations. The authors use inductive analysis of empirical data to explain how (1) nursing work is organized, structured, and circumscribed by centrally determined policies and practices that downplay nurses' professional judgement about patient care; (2) power is held over nurses in their relationship with their manager; and (3) nurses' response to power is to engage in strategies of resistance. The authors illustrate how power influences relations between staff nurses and managers and provide a critical analysis of the strategies of resistance that result in personal, relational, and critical empowerment among staff nurses. Through resistance, staff nurses engage in alternative discourses to counteract the prevailing neoliberal organizational and managerial discourses of efficiency and cost-effectiveness.

Keywords: nurse, nurse manager, empowerment, power, critical social theory

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CJNR 2014, Vol. 46 Nº 4, 83–100

Résumé

Une perspective critique des relations entre le personnel infirmier et les infirmières gestionnaires : la théorie de l'avancement de l'autonomisation des infirmières

Sonia Udod, Louise Racine

Cette étude se penche sur la question de l'autonomisation dans les relations entre infirmières et gestionnaires. Elle examine notamment la façon dont les conflits sont gérés par les deux camps et l'influence qu'exerce la perspective sociale critique sur ces relations. Les auteures ont recours à l'analyse inductive de données empiriques afin d'expliquer (1) la façon dont le travail infirmier est organisé, structuré et encadré par des politiques et des pratiques déterminées par des instances centrales et qui minimisent le jugement professionnel des infirmières en matière de soins aux patients; (2) le pouvoir des gestionnaires dans le cadre de leurs relations avec les infirmières; et (3) la réaction des infirmières face au pouvoir et les stratégies de résistance. Les auteures mettent en lumière l'influence qu'exerce le pouvoir sur les relations entre le personnel infirmier et les gestionnaires et présentent une analyse critique des stratégies de résistance qui mène à une autonomisation personnelle, relationnelle et critique au sein des effectifs infirmiers. Par la voie de la résistance, le personnel infirmier amorce un discours alternatif qui neutralise les discours organisationnels et gestionnaires néolibéraux dominants axés sur l'efficience et le rapport coût-efficacité.

Mots clés : infirmière, infirmière gestionnaire, autonomisation, perspective sociale critique, stratégie de résistance

Introduction

The concept of empowerment has been widely examined in the academic literature and is an important concept when applied to nursing practice. A multidimensional concept of empowerment refers to (1) enabling an individual to act by sharing power with others in order to achieve a common goal, and (2) enabling individuals to gain control over their lives as they become aware of aspects of the organizational system and their practice that constrain their work (Udod, 2011). According to Kanter (1977, 1993), power provides access to resources, support, and information and can help nurses to accomplish their work in meaningful ways.

Research by Greco, Laschinger, and Wong (2006) and Laschinger, Wong, McMahon, and Kaufman (1999) confirms that nurse managers play a key role by sharing access to resources, information, support, and opportunity in work settings that enable nurses to successfully deliver care within their organization. Laschinger and colleagues (1999, 2008) provide evidence of the pragmatic and empirical adequacy of Conger and Kanungo's (1988) view of empowering behaviours, in which the leader removes conditions from the work environment that decrease nurses' self-efficacy. By sharing power and enabling nurses to develop a sense of ownership in their work and within the organization, empowerment is thought to increase nurses' commitment and involvement, ability to cope with adversity, and willingness to act independently (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). Studies show that when nurse managers empower staff nurses, they increase the nurses' commitment to the organization, reduce job stress, and reduce nurse turnover (Laschinger, Finegan, & Shamian, 2001a, 2001b; Priest, 2006).

In spite of this rich body of evidence, recent reports indicate that nurses' low levels of trust in management and lack of effective leadership affect nurses' working conditions and their ability to meet patient care requirements (Canadian Nursing Advisory Committee, 2002; Laschinger & Finegan, 2005; O'Brien-Pallas et al., 2005; Priest, 2006). Studies indicate that building trust between nurses and their managers is vital for creating conditions of nurse empowerment and that it occurs within relations of power that contribute to a positive work environment (Hardy & Leiba-O'Sullivan, 1998; Moye & Henkin, 2006). Overall, nurses' limited interactions with their managers, fuelled by low levels of trust, narrows the scope for creating conditions for nurse empowerment.

In this article we extend the concept of nurse empowerment from a critical social perspective by discussing how false consciousness may

prevent staff nurses from gaining control over the delivery of nursing care. We briefly describe critical inquiry and examine how nursing work is actively organized, structured, and circumscribed in line with hierarchically determined policies and practices that contribute to the disenfranchisement of nurses. Finally, we explain how power is held over nurses in their relationships with their manager, and how nurses' response to power is to engage in strategies of resistance.

Critical Theoretical Perspectives

Critical perspectives are a useful paradigm for conducting nursing research, as the aim of the critical tradition is to explore and explain how power is embedded in everyday nursing practice and care delivery (Aranda, 2006; Cheek, 2000, Racine, 2003). Our views of critical perspectives align with the Frankfurt School tradition. However, we concur with Kincheloe, McLaren, and Steinberg (2011) that critical perspectives share ontological assumptions with postmodern, poststructuralist, and postcolonial approaches. Critical approaches operate from shared worldviews about the nature of reality, the goals of inquiry, and knowledge development (Lincoln, Lynham, & Guba, 2011). Our first premise is that power operates to shape the everyday reality of nursing practice (Aranda, 2006; Holmes & Gastaldo, 2002) and that the application of critical approaches provides an opportunity to explain that "all thought is fundamentally mediated by power relations that are socially and historically constituted" (Kincheloe et al., 2011, p. 164). Second, "facts cannot be isolated from the domain of values or removed from some ideological inscription [neoliberal efficiency and cost-effectiveness]" (Kincheloe et al., p. 164). Finally, critical approaches focus on privilege and how positions of privilege can subjugate other groups through "governmentality" (Holmes & Gastaldo, 2002; Kincheloe et al., 2011). In summary, critical theorists agree that power is a basic component of human life, shaping human and workplace interactions (Foucault, 1995; Kincheloe et al., 2011; Nicholson & Seidman, 1995).

Nurse researchers have used critical social theory as a lens through which to promote consciousness-raising in order to deconstruct power relations in nursing so that nurses can relate and act in more emancipated ways (Browne, 2000; Falk-Rafael, 2005; Fontana, 2004; Kagan, Smith, Cowling, & Chinn, 2009; Street, 1992). We reveal the ways in which power is exercised in organizations and how individuals develop the social and critical consciousness necessary to understand how power operates within the context of the nurse–nurse manager relationship.

Purpose

This study adds knowledge with respect to the concept of relational and critical empowerment theory by illustrating staff nurses' strategies of resistance to managerial practices so as to overcome ideological discourses of efficiency and cost-effectiveness. Empowerment cannot be fully understood and acted upon unless power itself is understood (Bradbury-Jones, Sambrook, & Irvine, 2008; Hardy & Leiba-O'Sullivan, 1998). The limitation resides in the fact that power in the nurse–manager relationship has been investigated mainly through postpositivist research (Laschinger et al., 2001a, 2001b; Laschinger, Finegan, & Wilk, 2009). The overarching research question guiding this study was as follows: *What are the processes that shape how staff nurses and their nurse managers are situated in social relations of power that foster or constrain staff nurse empowerment?*

Methods

A previous study investigated how staff nurses and their managers exercise power in a hospital setting to better understand what fosters or constrains staff nurses' empowerment (Udod, 2014). The results of that study primarily advance the structural perspective (Udod, 2014). This study is intended to extend nurse empowerment theory to a critical social perspective.

Grounded theory (Corbin & Strauss, 2008; Strauss & Corbin, 1998) was used to theorize how power is exercised in the nurse–manager relationship. Participant observations, semi-structured interviews, and field notes were used to collect information from staff nurses about how the manager's role affected their ability to do their work. Fieldwork was conducted with 26 staff nurses on three units of a tertiary hospital in western Canada. Nurses ranged in age from 25 to over 50 years; 40% of the sample were 26 to 30. The majority of nurses were female (88%) and the majority had a nursing degree or a nursing degree in progress (64%). The length of time nurses had been working on their current unit ranged from 7 months to 24.5 years with a mean of 7.5 years. Nurse managers were not included in the data collection as the study focused on the relations of power from the perspective of staff nurses.

Data were analyzed using grounded theory methodology whereby sampling, data collection, and analysis are intertwined. As data were collected and generated, coding was begun at all three levels of analysis (open, axial, and selective) (Corbin & Strauss, 2008; Strauss & Corbin, 1998). A grounded theory perspective allowed for a meaningful explanation of how staff nurses exercise power in social relations with their manager.

Ethical approval was obtained from the university and hospital associated with the study.

Results

Because of the critical perspective used, the results demonstrate how staff nurses took action against institutional, organizational, and managerial oppressive forces to change their working conditions through resistance strategies. The findings are described around three areas: *organizational context, exercise of power in the nurse–manager relationship,* and *resistance strategies.*

Organizational Context

Nurses' constructions of organizational context are instructive in understanding the power dynamics between staff nurses and managers. From the perspectives of the participants, managerial priorities such as budgetary concerns and policies combined in various ways to restructure what counts as nursing work in redirecting and reprioritizing nursing care delivery. As Rudge (2011) points out, managerial priorities effected through the power of the institution serve to organize, control, and reorganize nurses' work by shaping the perceptions of their practice as acceptable and natural as it becomes a normalized part of nursing practice through the institution of polices for the cost-effectiveness and efficiency of the system.

"The Budget." Nurses perceived that managers' preoccupation with the budget, and the associated fiscal and human resource cutbacks and shortages, frequently fell short of meeting patient care requirements on the units. Although nurses considered fiscal management a priority, they took exception to managers focusing primarily on the budget:

> *[The nurse manager's] goal was to . . . decrease the staff hours on the unit . . . even though you didn't notice a difference [in staffing], you were sort of stressed out . . . coming to work knowing that if you were short-staffed you weren't going to have that support brought in. Then there's a lot of questions. If you did ask for a sitter to come in, she [nurse manager] would really grill you about [it]. It was as if she didn't trust your judgement . . . she was looking at the dollar figure more than how stressed we were at work or what our work environment was.*

Amidst physical and human resource constraints, nurses frequently found their nursing activities redirected because of multiple competing demands. How nurses came to view and carry out their work was shaped

by the repressive managerial practices of the nurse manager, which often took priority over direct patient care tasks.

Similar results regarding the regulation of nursing work through organizational processes and practices can be found in the literature (Wong, 2004). Nurses respond by completing their assigned patient care in less time, so that their work becomes treated as expendable. Nurses' work is often carried out within a culture of urgency in which "quality patient care" is supported without question while at the same time the ideology of the "caring" and "good" nurse is used to coerce nurses into doing more with less (Rudge, 2011). Close examination reveals that, in the midst of the sense of urgency to meet care needs, not only is nurses' work fragmented but nurses lose their ability to delineate how workplace conditions affect nursing — and thus resistance is averted (Rudge, 2011). In effect, nurses are absorbing the work and the pressures of the organization (Cooke, 2006) and limiting their own ability to provide patient care.

Being controlled by policies. Nurses described policies as a dominant and organizing aspect of their work that influenced care delivery. For instance, nurses' work was disrupted by policies that manifested as hospital alerts, rapid patient discharges and transfers to maximize bed capacity, and the numerous tasks they had to take on as a result of diminished administrative support:

> *We're told we absolutely have to take that patient, no ifs, ands, or buts, we are bringing up that patient now, they will be up in 5 minutes. . . . we always get told, "Oh, you'll manage, you'll manage, you'll manage," and you just say, "Why do we have to manage?"*

In such situations, work and time pressures caused nurses to focus on "the basics of care" — tasks that are measurable and necessary for organizational efficiency. As a result, fears about patient safety and nurses' liability for potential mishaps frequently surfaced:

> *The crazy thing is, it [not replacing staff] continued to happen after . . . we would directly say, "Patient safety should be our primary focus and it is being compromised." . . . it makes you scared, because you're going home thinking, were there any med errors? I mean, you don't ever want to compromise your patients.*

In adopting Smith's (1999) viewpoint, one can see that bed policies served as a ruling relation to control nurses' work (Wong, 2004). The responsibility for bed monitoring was integrated into nurses' practice and not problematized, because caring for patients wherever they are located in the hospital is part of nurses' work.

Policies represent a sophisticated and invisible form of power over nurses and their work (Rankin & Campbell, 2006). Patient safety[1] required nurses to engage in a substantial amount of charting to support management, even though the interests of administrators differ from those of nurses. In effect, the organization, through its proxies (nurse managers), enforced policies and regulations designed to safeguard the interests of patients and operational efficiency, seemingly without regard to how these might affect nurses' ability to provide good care. From a critical perspective, the discourse of patient safety reveals a disjuncture between the reality of nurses' everyday practice and the policies promoted by nurse managers. As a consequence, nurses experienced dissonance in their practice and began to draw up strategies of resistance in order to re-appropriate their practice.

Exercise of Power in the Nurse–Manager Relationship

Data analysis revealed that nurses were directed by bureaucratic policies and practices, even in the absence of the manager. This invisible hand of power represents a very effective ruling relation or means of "governmentality" (Holmes & Gastaldo, 2002), through which staff nurses became their own means of control and found themselves in an even more oppressive situation.

Working without an anchor. In the absence of dialogical and reciprocal relations, nurses and managers grew distant and nurses felt isolated from the manager's guidance, support, and access to resources, which in turn served as a deterrent to meaningful interaction. Without the active participation of the manager, nurses experienced the added pressure of having to meet organizational imperatives while also providing care. Nurses perceived the nurse manager's lack of awareness of what was happening on the unit as a dissonance between the needs of patients and the manageability of nurses' work:

> *Well, how can I say this? I did bring up to her [manager] the fact that we did need support staff and all that, but when it's reflected back to you and nothing is done you don't feel like coming up to the person any more . . . [We] are listened to, but [our] opinions are not valued.*

Such comments support the notion that "hearing is not listening" (Cicourel, 1983, p. 138). The manager's lack of visibility and accessibility

[1] Patient safety can be seen as an ideology promoting the "well-run" system described by Rudge (2011). It is used to govern nurses' work according to the values of the organization, reducing adverse events and complications to minimize patient stays and achieve cost-efficiency. We wonder if the real purpose of "patient safety" is to serve the ideology of the organization, subjugating patients as well as nurses in the process.

shaped nurses' practice. Rankin and Campbell (2006) report that nurse leaders learn to apply text-based methods of managing nurses, which include assessing workload and ensuring that documentation standards are met; such management techniques are expressed in policies and strategies designed to make efficient use of nurses' time and of other resources. The efficiency discourse as a form of power was taken up by nurses as a dominant discursive framework that was shaped and defined by the organization. Managers' monitoring and enforcing of policies achieved the desired level of involvement by nurses without the manager's presence on the unit, thus reinforcing the hierarchical and supervisory relationship at the expense of a collaborative nurse–manager relationship.

New governance models have also radically changed nursing leadership structures. The literature reveals that nurse managers have increasing spans of control (Laschinger et al., 2008; McCutcheon, Doran, Evans, McGillis Hall, & Pringle, 2009). In the present study, because the manager was less visible on the unit, nurses perceived themselves as scrutinized by the manager through policies in the form of incident reports and surveillance of documentation. Complex bureaucratic tasks are described in the following memo drawn from field notes written during an observation session:

> *Fidelity to the paperwork was highly prioritized by nurses in this study. In fact it appears to be more prized than educating the patient one on one. Nurses spend more time on paperwork saying that education has been provided . . . than in actually spending time with patients . . . Nurses can tick off tasks indicating they have responded to a specific activity, but it was not always clear that the specific activity was completed. Paperwork has become an acceptable and tangible substitute for patient education. I wonder what would happen if nurses actually spent time with patients instead of spending so much time on paperwork.*

The fact that nurses could be observed, judged, and evaluated through their documentation reveals the discreet yet subjugating form of power that prevailed within the organization.

Silencing forms of communication. Communication or lack thereof represented a mechanism for circumscribing and altering dialogue between nurses and the manager. The effect of silencing was that nurses' voices were not heard and input into policy changes and decision-making at the unit level was minimized. On one unit, the implementation of a new care delivery model left staff feeling that they had little input into the decision-making process:

> *I know there [were] some meetings just prior to doing this [implementing the model] to discuss staff concerns. An e-mail was sent out, and I'm probably the only person on the ward that doesn't have a computer or an e-mail so I didn't know anything about it, but people told me it [the meeting] was, like, from 7:25 to 7:30, which I don't feel was much time to address any issues about the model. . . . Actually, I would have liked more staff input right from the beginning, and I'm not quite sure how they're going to be doing this because we're just trialling it and I'm hoping at some point there will be staff feedback. [The manager] has been somewhat receptive to that because she's letting us use it, whatever we feel is best in observation. We've raised the issue of having a senior assist or a special care aide as the second person, because they're not taking a patient load . . . I'm hoping that we'll be able to have input into modifying it to fit our needs.*

Unresponsive institutional structures and practices and fragile nurse–manager relations made for a nurse–manager relationship devoid of shared power, potentially resulting in a sense of disempowerment among nurses. Nurses viewed the manager as a tangible and visible form of power and the primary architect of their job dissatisfaction. In this way, power was held over nurses, restricting their discussions with the manager and compelling them to execute managerial priorities without having any input.

The findings related to limited communication patterns are congruent with those reported in the empirical literature. Cheek and Gibson (1996) found that the privileging of physician and nursing management voices intruded into nursing issues and affected nurses' work. In a similar vein, Daiski (2004) found that nurses' perceptions of their disempowerment resulted from nurse leaders aligning with hospital administrators and that nurses navigated institutional policies as effective and obedient employees but with limited guidance from the manager. Finally, in the present study the manager's lack of visibility and limited communication caused nurses to have little trust in the manager and to sense the manager's power over them, prompting them to take resistive actions against the power of the organization as embodied in the nurse manager.

Resistance Strategies

In response to their experiences of disempowerment, nurses employed a variety of resistance strategies that were selective and were used at multiple points along a continuum, depending on the degree of oppression they felt within a particular context.

Setting limits flexibly. Nurses described setting limits flexibly, making disparaging and judgmental remarks to each other about the manager's

performance. Nurses dropped hints about a manager's trial period, but it was never clear how long a manager's probationary period was, what exactly she needed to achieve, and when the learning curve expired. As the study progressed, one nurse said that the time limit being afforded to a new manager was about 6 months. However, another commented as follows:

> *[The manager] is still new so we [nurses] are still giving her a year or 2 grace. [The clinical coordinator] has directly worked on the ward, so we know that she understands. We sometimes wish [the manager] would give the ward a whirl for a little bit to see what it's like, but we're giving her, certainly, a grace period.*

Street (1992) suggests that nurses are most articulate about their relationship with nursing administration when their oppression is most explicit and when they are most active in terms of resistance. Similarly, nurses in the present study did not challenge the basis of the manager's pressure by critically examining the rules of the system that compel managers to make specific administrative decisions, but they did feel that the manager was largely to blame for their oppression. This may indicate that the participants were in a state of false consciousness, a state whereby staff nurses do not see their manager's oppression and are not conscious of their own oppression until their working conditions become untenable (Rudge, 2011; Smith, 1999).

Running interference. At the middle of the continuum of resistance strategies, nurses described running interference by not carrying out certain tasks or not engaging in certain activities as a more tangible but indirect form of resistance regarding their manager. On one unit, nurses refused to comply with a new care delivery model: "Everybody was kind of digging their heels in." Six months later the model was re-introduced. This change was not perceived as important to nurses, so they justified their non-compliance by indicating that they were not consulted on developing the policy for the model and the model might not work:

> *I think most nurses now are doing it when they have time, and when they're not, we're not, which isn't the best thing but that's just the way our unit goes.*

Another study also found instances of passive resistance, with nurses ignoring charts or making minimal effort to record information (Street, 1992). In yet another study, nurses exhibited an indirect form of resistance, labelled "responsible subversion," aimed at bending the rules (Hutchinson, 1990), using different strategies such as pretending not to notice events in order to be seen as advocating for patient care, thus indirectly advocating for better working conditions; nurses made decisions

alone or in consultation with one another to advocate for patient care and reduce their stress, thus regaining control over their work.

Battling back. At the extreme end of the continuum, when nurses perceived themselves as having minimal control over their work they exercised collaborative power to engage the manager. "Collaborative power" refers to nurses joining together in a coalition to demand better working conditions under the guise of achieving better patient care. This strategy was productive because it was aimed at increasing meaningful interaction in decision-making to enhance nurses' control over their work with the noble goal of safer and better care practices.

Nurses' acts of positive resistance (Spreitzer & Doneson, 2005; Street, 1992) prompted them to meet with the manager's superior for guidance in taking collective action against the manager. It was under such conditions that nurses took calculated risks to focus on the object of their care: the individual patient. The goal of the meeting was to advance the proposal for the new unit and respond to leadership challenges:

> *We wanted to do it in a way that would be a two-way conversation, like a dialogue: [the [manager] could express her concerns and we could also; we would let her have her say and explain to us what her plan was, why we were doing things and why things were not being done, rather than just attack . . . so that's how it was set up.*

Findings from the present study surrounding nurses' resistance regarding their manager extend the work by Street (1992). Nurses were also able to resist oppressive situations and become effective advocates for patient care through a process of collective consciousness-raising, which came about during critical moments of oppressive leadership. According to Street, all oppositional behaviour needs to become a focal point for dialogue and critical analysis. In response to nurses' actions, nursing administration held several meetings in which nurses were able to move beyond oppression by engaging with the manager to discuss work issues. It was not apparent that changes to policies or practices were instituted to alleviate organizational pressures, but the manager resigned as a consequence of these meetings.

Nurses' most assertive acts of resistance rely on their professional knowledge of patient care, which includes documentation and going to a higher authority (Peter, Lunardi, & Macfarlane, 2004; Schroeter, 1999), which in turn is associated with "speaking truth to power" (Falk-Rafael, 2005). These acts of resistance call for nurses to exercise their power and advocate for patients through the expression and enactment of ethical and moral caring values (Falk-Rafael, 2005). Several authors challenge nurses to identify points of resistance and develop alternative discourses to improve patient outcomes by reducing adverse events (Baker et al.,

2004) and improve nurse outcomes with respect to job satisfaction, commitment, and burnout (Laschinger et al., 2001a, 2001b, 2009).

Discussion

The present study deepens our understanding of empowerment by including a third perspective, the critical social perspective. From this perspective, managers used their power, albeit subconsciously, to prevent nurses from challenging existing power positions by portraying the way nurses worked as acceptable or inevitable in light of organizational constraints (Hardy & Leiba-O'Sullivan, 1998). The critical social empowerment demonstrated in this study was a process whereby disenfranchised nurses became aware of the oppressive forces in their work environments and adopted positive and negative strategies of resistance against their managers by changing their working conditions. Nurses assumed responsibility for their own empowerment, and nurtured it by engaging in individual and collective actions to promote change.

The silencing of nurses was characterized by patterns of restricted and altered communication between nurses and their manager. In a study by Casey, Saunders, and O'Hara (2010), respondents reported a moderate level of critical social empowerment when they felt involved in decisions affecting themselves and their organization. Other research has found that work environments that are characterized by a perceived lack of support and lack of respectful teamwork are strong indicators of nurse burnout (Demir, Ulusoy, & Ulusoy, 2003). Moreover, a poor work environment and burnout may directly impact the nurse–patient relationship and hence the quality of care (Van Bogaert, Kowalski, Weeks, Van Heusden, & Clarke, 2013). Nurse manager strategies that include being visible and accessible and adopting a participative management style contribute to a high-performing work environment that fosters quality care (Wolf & Greenhouse, 2006).

Nurses' resistance to the oppressive nature of the managerial imperative was characterized by positioning to resist, and this resistance ultimately brought about change to their practice. The results of the present study parallel those described by Street (1992) as nurses' acts of passive and active resistance, and were especially evident in areas where nurses objected to bureaucratic processes and policies. Although these results may appear somewhat pessimistic, the use of a critical perspective sheds light on a different and positive view of critical empowerment. They demonstrate that when staff nurses become critically aware of the political, social, cultural, and economic contexts of their work, individual and collective empowerment becomes a reality and change becomes possible. Lincoln et al. (2011) underline the duality of critical inquiry as a require-

ment for bringing social critique to a situation with the possibility of making positive and liberating changes.

Implications for Managerial Practice and Quality of Patient Care

Our results clearly identify the centrality of managers' support and engagement in shaping nurses' relationships with them to achieve work effectiveness. It might be beneficial for managers to adopt a more inclusive, participative decision-making style, as this could have a positive effect on the work environment. For example, engaging nurses as active participants in developing practices and policies that underpin patient-care activities could influence nurses' job satisfaction. In addition, senior nurse administrators need to ensure that staff nurses have more of a voice in organizational decision-making and more meaningful involvement in defining and supporting care practices. Studies have demonstrated the importance of high-performing work environments that support nurses' perceptions of professional practice and quality patient care (Laschinger, 2008; McGillis Hall & Doran, 2007).

Summary

We believe that critical empowerment is a dialogical and dialectical process between nurses and their manager. It calls for managers to share power with, consult with, and involve nurses in decision-making in order to find alternative and productive ways to improve working conditions and better focus on patient care. Our results provide direction for staff nurses in exploring resistance as a means of change by critically appraising and problematizing institutional and managerial policies and practices as a way to (re)appropriate their own practice. Disempowering working conditions for nurses will continue until nurses are willing to critically examine the rules and social practices within the hospital bureaucracy that have a bearing on whether, how, and why certain actions are taken by managers and to explore nurses' role in their own oppression (Daiski, 2004; Street, 1992). Our findings should encourage nurses to critically reflect on how discourses of efficiency and productivity influence nursing practice and to see that they have some agency to advocate for themselves with regard to working conditions (Rudge, 2013) instead of passively supporting what Rudge (2011) describes as the "well-run" system.

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Acknowledgements

The intellectual contributions of Drs. Diane Doran, Jan Angus, and Heather Laschinger to this research project are gratefully acknowledged, as are the assistance and support of the Saskatoon Health Region in facilitating the project.

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