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McGill University School of Nursing

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EDITORIAL

Lynn McDonald: Champion of Florence Nightingale

This year is the centenary of Florence Nightingale's death. Nightingale passed away on August 13, 1910, at the age of 90. It also marks 150 years since the publication of *Notes on Nursing,* her treatise on secular, modern nursing, as well as the opening of the first Nightingale School of Nursing. To commemorate these events there has been a proliferation of publications, both positive and negative, on Nightingale's life and legacy, as well as a re-issuing of her most influential writings on nursing.

This editorial is dedicated to the work of Lynn McDonald, professor emeritus at the University of Guelph, sociologist, social scientist, and Nightingale scholar. I will return to Dr. McDonald shortly, to explain why she is so deserving of this attention and why I consider her the "other" lady with the lamp.

But first, let me set forth my position on Florence Nightingale. I am a Nightingale devotee. When I was a young girl, Nightingale's biography captured my imagination, and it later played a role in my decision to become a nurse. Throughout my career, particularly when I have found myself at a crossroads, I have returned to Nightingale's writings for inspiration, direction, and re-affirmation of what nursing is or ought to be.

In the year 2000 I found myself at such a crossroads just as my directorship of the School of Nursing at McGill University had drawn to a close. It was a time when nursing ping-ponged between nursing surpluses and shortages. It was a time of mass firings when the work of nurses went unrecognized and underappreciated and when some believed that nurses could be easily replaced by less educated and less skilled health-care workers. It was a time when nursing identity and role confusion were at their most acute. It was a time when many nurses abrogated traditional roles rooted in the care of the body in favour of technology and medical functions. I was disheartened by these events, and so I decided to spend the first part of my sabbatical year becoming reacquainted with Florence Nightingale and her writings, re-reading *Notes on Nursing* (Nightingale, 1860/2010) and *Suggestions for Thought* (Calabria & Macrae, 1994) and reading some of the biographies published over the decades. Two books caught my attention because they cast a shadow over Nightingale's character, impugned her reputation, and called into question her motivations — in short, they knocked Florence

Nightingale off her pedestal and undermined her legacy (Small, 1998; Smith, 1982). I could not be swayed by the arguments of these authors, although I had no basis for questioning their scholarship. In reading Nightingale's own words, I found myself inspired anew and, in fact, able to reframe my own theoretical work within her principles. This experience affirmed for me that, however unpopular Nightingale had become, it was important that one be guided by her own words and not the interpretation of her words by others.

Fast-forward to 2009 and my next sabbatical. Although I am not a historian and have not had any training in historical methodology, I have been immersed in nursing for more than 45 years. I understand and know nursing well. Nightingale continued to intrigue. I was working on new ideas about the nature of person-environment, and I realized that Nightingale was the person to study and that the Florence Nightingale School of Nursing and Midwifery, King's College London, was the place to go. It was there that I first came across the impressive work of Lynn McDonald, a fellow Canadian.

Dr. McDonald had undertaken the daunting task of putting together the writings of Florence Nightingale in a collection of volumes. Nightingale was one of the most prolific writers of her time, and she covered a wide range of topics. The breadth and scope of her interests are breathtaking. She wrote on nursing, nursing education, health, healing, public health in England and India, statistics, social reform, theology, mysticism, society and politics, the Crimean War, hospital administration, hospital architecture, and women's role in society — to name just some of the subjects that captivated her. She was a philosopher, nurse, feminist, administrator, social commentator, and social reformer. During her lifetime, from girlhood through to her early eighties, she published numerous books, articles, position papers, pamphlets, and over ten thousand letters (McDonald, 2010). She carried on a prolific correspondence with innumerable individuals: politicians, colleagues, friends, family members — people of considerable influence and none at all.

Lynn McDonald, as Editor of the Collected Works of Florence Nightingale, spearheaded a project to locate both published and unpublished material and compile it into 16 volumes, each weighing in at around a thousand pages (the volumes are listed below in Appendix 1). Dr. McDonald's work is stunning in its scope and depth and, most importantly, it gives Florence Nightingale back her own voice.

The 16 volumes are organized thematically rather than chronologically. The first few contain material that heretofore had not been published — and in some cases had not even been known to exist. These serve as a foundation for later volumes. For example, Nightingale's ideas were informed by her family and her faith and hence the earlier volumes cover these topics.

Who Is Dr. Lynn McDonald?

I had the privilege of interviewing Dr. McDonald for this editorial, and I came away very impressed indeed. I could not help but draw parallels between subject and author. Not unlike Florence Nightingale, Lynn McDonald is passionate about her topic and will go to great lengths to achieve her goal. She has devoted the last 20 years to bringing forth this collection of works despite innumerable obstacles — little to no funding, meagre interest and support from the nursing community, editors committing only to later withdraw.

McDonald, like Nightingale, is an ardent feminist. It was her commitment to understanding the contributions of women theorists to the origins of social science that led her to Florence Nightingale. She discovered Nightingale while examining social and classical theorists, both male and female, of the 19th century. Up until then, she told me, "if one took a course in philosophy, political thought, or sociology, you'd think all 19th-century theorists were men, and you'd be wrong." Nightingale was just one of the women on McDonald's list of theorists, and as McDonald became more familiar with Nightingale's ideas and writings she found herself devoting more and more time to her.

Like Nightingale, McDonald is a systems thinker who believes that ideas can best be understood in their own particular context and from a wide-angled social and historical perspective. And not unlike Nightingale, she has an insatiable curiosity in her search for understanding and in locating Nightingale material scattered among 200 archives worldwide (McDonald, 2010). She is a superb detective and has pursued hundreds of leads, hunted down material that has taken her to private and public collections found in libraries, resource centres, and attics throughout Great Britain, Canada, the United States, Germany, Australia, New Zealand, India, Japan, and Turkey.

But above all the two women share a commitment to social justice and the betterment of society through political activism. Nightingale spent a good part of her life working to better the lives of the poor by fighting for clean water, improved sewerage, and decent housing, by working with influential Members of Parliament and providing them with the arguments and the data. McDonald served as a Member of Parliament from 1982 to 1988, representing the New Democratic Party, and is a former president of the National Action Committee on the Status of Women, Canada's largest women's organization.

How the Collected Works Came About

A number of events conspired to bring this project about. As McDonald lectured on early social science theorists, both undergraduate and graduate students became intrigued and captivated by Florence Nightingale. Many of McDonald's students wanted to write papers on Nightingale but had difficulty finding or accessing primary source material. Works that were available, such as *Notes on Nursing,* had little to say from a sociological perspective. To address this shortcoming, McDonald assembled a team to gather the information, and thus the project was born. She secured a publishing contract with Wilfrid Laurier University Press. At about the same time, the writings of John Stuart Mill, another 19th-century philosopher and theorist — and both a contemporary and a correspondent of Nightingale's — were being collected in a series of volumes. Even though Mill's works were readily available and accessible, this project had no difficulty attracting significant funding, whereas McDonald was meeting with little success. Then came the publication of several negative books on Nightingale. A book by the Australian historian F. B. Smith that is vicious in its attack on Nightingale, even blaming her for the high mortality rates in the Crimea, not only went unchallenged but was extolled (Smith, 1982). McDonald paid no heed to Smith's assertions. Being familiar with Nightingale's writings, she found Smith's book to be laced with inaccuracies, distortions, and outright lies. Smith had relied on secondary sources and when McDonald went back to his primary sources she found that he had taken Nightingale's writings out of context. Smith's book, other negative books on Nightingale published subsequently, and three BBC programs casting her in a poor light and seen by millions went uncriticized by those who should have come to Nightingale's defence and set the record straight — namely nursing leaders, historians, and other social scientists. Nightingale's reputation was easily tarnished because, as McDonald astutely observes, she "had been revered but was not read." McDonald knew that this situation could change if Nightingale were permitted to speak through the voluminous writings of hers that had miraculously survived.

The Significance of the Collected Works

Poor scholarship and ignorance are dangerous. They contaminate and destroy reputations, negate people's lived experience, and distort reality. When fiction trumps facts, everyone is vulnerable to pernicious attacks that often lead to the wrong decisions and the wrong actions. The best weapon against such a pernicious virus is knowledge. Good researchers rely on primary sources. Many of Nightingale's attackers have leaned heavily on secondary sources or have misinterpreted her work and taken it out of context.

This collection brings together all the primary sources of Nightingale's writing. It is a treasure trove for anyone wishing to understand, explain, describe, and know Nightingale and her contributions. It is a sourcebook for nurse scholars and social scientists. McDonald is the first author to make use of Nightingale's various works, and she has written a most informative biography, *Florence Nightingale at First Hand* (McDonald, 2010), based not on secondary sources or fiction but on primary sources.

This work serves to remind us that Nightingale gave us the methodology to bring about change. As McDonald notes, she was the first to develop a research methodology and the first to graphically display her findings in order to make a case for change. Nightingale begins by observing what is, and then, based on solid research, determines what is and is not working in order to intervene. "We mustn't be relaxed," says McDonald, paraphrasing Nightingale. "We mustn't say, 'Oh, yes, I've done the right thing.' Be careful and follow up with monitoring and see what is actually working and what is not." McDonald adds, "This is still very good advice. For example, in terms of hospital safety, this is needed even more today."

Finally, each volume makes fascinating reading for both the layperson and the professional. Because of the many topics on which Nightingale wrote, there is something for everyone. She was one of the eminent thinkers of the 19th century. The reader cannot fail to be impressed by Nightingale's incisive mind, as evidenced in her keen observations and superb analyses. She is a person who paints a large canvas yet knows the importance of the details. She writes with compassion, wit, passion, and above all integrity. The reader comes away from each of these volumes in awe of the woman and inspired by her brilliance.

Conclusion

We in the nursing community must acknowledge the tremendous gift that Lynn McDonald has given us. She has provided us with a sourcebook for interesting questions about Florence Nightingale, the origins of modern nursing, and all that affected the conduct of nursing yesteryear and continues to affect it today.

McDonald has given us the tools to ward off unsubstantiated attacks against Nightingale. It is nurses who need to restore Nightingale's reputation, first within our own ranks and then among those who would defame her. When we undermine Nightingale we undermine nursing. She provided nurses with a broad mandate in society. The social contract is far-reaching in the areas of health promotion, illness prevention, and public health, and as concerns healers and social reformers, and it can be fulfilled with every patient encounter and be extended to social activism. Nightingale's imaginings and actions are as relevant now as they were in her day. The context and times may have changed but her messages are timeless and translate well to today's realities (see, for example, Dossey, Selanders, Beck, & Attewell, 2005).

I have dubbed McDonald the "other" lady with the lamp, because her work has the power to illuminate, inform, and inspire the current generation of nurses and the generations to come, just as did the work of Nightingale, referred to fondly as "the lady with the lamp."

Laurie N. Gottlieb
Editor-in-Chief

References

Calabria, M. D., & Macrae, J. A. (Eds.) (1994). *Suggestions for thought by Florence Nightingale: Selections and commentaries.* Philadelphia: University of Pennsylvania Press.

Dossey, B. M., Selanders, L. C., Beck, D.-M., & Attewell, A. (2005). *Florence Nightingale today: Healing, leadership, global action.* Silver Spring: MD: American Nurses Association.

McDonald, L. (2010). *Florence Nightingale at first hand.* Waterloo, ON: Wilfrid Laurier University Press.

Nightingale, F. (1860/2010). *Notes on nursing.* In V. Skretkowicz (Ed.), *Florence Nightingale's Notes on nursing and Notes on nursing for the labouring classes: Commemorative edition with historical commentary.* New York: Springer.

Small, H. (1998). *Florence Nightingale: Avenging angel.* London: Constable.

Smith, F. B. (1982). *Florence Nightingale: Reputation and power.* London: Croom Helm.

Appendix 1 *The Collected Works of Florence Nightingale, Edited by Lynn McDonald*

Vol. 1: *Florence Nightingale: An introduction to her life and family,* 2002

Vol. 2: *Florence Nightingale's spiritual journey: Biblical annotations, sermons and journal notes,* 2002

Vol. 3: *Florence Nightingale's theology: Essays, letters and journal notes,* 2002

Vol. 4: *Florence Nightingale on mysticism and Eastern religions* (Gérard Vallée, Ed.), 2003

Vol. 5: *Florence Nightingale on society and politics, philosophy, science, education and literature,* 2003

Vol. 6: *Florence Nightingale on public health care,* 2004

Vol. 7: *Florence Nightingale's European travels,* 2004

Vol. 8: *Florence Nightingale on women, medicine, midwifery and prostitution,* 2005

Vol. 9: *Florence Nightingale on health in India* (Gérard Vallée, Ed.), 2006

Vol. 10: *Florence Nightingale on social changes in India* (Gérard Vallée, Ed.), 2007

Vol. 11: *Florence Nightingale's suggestions for thought: Collected works of Florence Nightingale,* 2008

Vol. 12: *Florence Nightingale: The Nightingale School,* 2009

Vol. 13: *Florence Nightingale: Extending nursing,* 2009

Vol. 14: *Florence Nightingale: The Crimean War,* 2010

Vol. 15: *Florence Nightingale on later wars* (forthcoming)

Vol. 16: *Florence Nightingale and hospital reform* (forthcoming)

For further information on the Collected Works of Florence Nightingale, visit the project's Web site: www.uoguelph.ca/~cwfn.

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GUEST EDITORIAL

Mental Health Research and Practice: Current Challenges and Opportunities for Nursing

Jean R. Hughes

This issue of *CJNR* is devoted to understanding how personal, social, and environmental factors come together to foster mental health, in whom, and under what conditions. It builds on the Journal's last issue devoted to mental health, published more than a decade ago (Vol. 31, nº 2, September 1999). Articles in that issue debated the adequacy of widely used theoretical orientations for mental health care (bio-psycho-social) and tested intervention models (e.g., the health belief model) and approaches (e.g., psycho-education). Several articles addressed specific demographic populations (children, abused women), and while an individual lens was adopted in general, a broader lens was used to examine one environmental context: the hospital.

Since that time, mental health nursing research has evolved, building on the foundation established by our predecessors. While we continue to focus many of our investigations on the individual, we have come to understand that the "individual" is not unidimensional but comprises many demographically diverse characteristics. For example, at the personal level, research attention is currently directed at a broad range of specific demographics (age, gender, ethnicity, sexual identity/orientation) and the interactive effects of multiple factors (e.g., co-morbidities). Likewise, earlier investigations directed us to include in our research today a broad range of factors at the social and environmental levels.

At the social level, research attention is now increasingly directed at population characteristics and the effects of such social responses as marginalization of people with mental illness. At the environmental level, more research attention is being directed at the role of place (e.g., socio-cultural environment and process) within a particular geography (urban/inner city/peri-urban/rural/remote). Hence, researchers are investigating such issues as whether different cultural groups experience mental illness in the same way, or the effects on mental health of living in a rural versus an urban setting. The explorations have become more challenging, both theoretically and methodologically, as researchers try to understand how personal, social, and environmental factors interact.

Fortunately, as was evident in the 1999 issue devoted to mental health, new theories have emerged in the quest to understand how such multifaceted information comes together. For instance, the perspective offered by complexity theory enables researchers to examine the relationship between system processes and individual and community health outcomes (Durie & Wyatt, 2007). Such theories have helped to bring to light opportunities to get "unstuck" from individual-level, or unidimensional, interventions and the need to address more fully the underlying social, economic, and political conditions that affect mental health. These types of theory have prompted numerous discussions and investigations of the barriers to addressing mental health issues and ways to make a sea change — to work towards the development and implementation of policies and services aimed at building structural conditions that promote mental health. Such efforts have, in turn, prompted increasing exploration of the effects of services that are collaborative (e.g., collaborative mental health/shared care), culturally relevant (e.g., community-based/outreach), and multi-sectoral/integrated (health, community/social services, housing, education). These efforts have also intensified the need to direct attention away from interventions that are solely problem-based and towards comprehensive interventions that are strength-based, and, in addition, to redirect the focus from mental illness to mental health promotion and prevention of mental illness. One such exploration is the invited Discourse piece in this issue of the Journal. Corey Keyes describes the ongoing debate on whether mental health and mental illness are opposite ends of a continuum or are, in fact, two separate phenomena. This discussion is important not only for the development of a sound theoretical argument to support the model in which mental health and mental illness are viewed as two distinct concepts, but also for the presentation of a newly developed measure of well-being. The evidence suggests that one can flourish despite having a mental illness, thus making the case for a paradigm shift in traditional thinking about mental illness.

A prominent Canadian initiative that has been part of the sea change in thinking about mental health is the report of the Standing Committee on Social Affairs, Science and Technology, *Out of the Shadows at Last: Transforming Mental Health, Mental Illness and Addiction Services in Canada* (Kirby & Keon, 2006). This report served to launch the Mental Health Commission of Canada (MHCC) in 2007, with the goal of helping to "bring into being an integrated mental health system that places people living with mental illness at its centre" (http://www.mentalhealthcommission.ca/English/Pages/TheMHCC.aspx). One of the MHCC's current initiatives is a research program directed at finding ways to eliminate a longstanding challenge in mental illness, stigmatization — on the part of both the general public and the health professions — and at finding meaningful ways to include the voice of people with mental illness at all levels of decision-making and service provision (e.g., peer support). In the Happenings contribution in this issue of *CJNR*, David Goldbloom, Vice Chair of the MHCC, discusses the Commission's significant innovations, along with the challenges and opportunities and their implications for the health-care system and the mental health of Canadians. Goldbloom highlights the importance of learning from the experience of other groups who have faced stigma (such as those with breast cancer and HIV/AIDS) and of working with all sectors (e.g., people with lived experience, families, service providers, policy-makers, community organizations) to find solutions that promote community ownership.

The four research contributions selected for this volume address one or more of the current issues in the field of mental health discussed above. All four address the role of demographics, reflecting the need to examine mental health issues within particular/target populations and environments and the growing recognition of the influence of developmental stage on mental health issues. Two articles — one by Elizabeth McCay and colleagues and the other by Charmaine M. McPherson and Elizabeth A. McGibbon — focus on children and youth. The other two articles — one by Marilyn C. Ohler and colleagues and the other by Aleck Ostry and colleagues, examine depression among working nurses across the adult age span.

There is growing awareness that mental illness is a major health issue affecting all aspects of life, including employment. The contribution by Ostry and colleagues explores the effects of a particular geography on mental health — urban versus rural. Specifically, it examines the effects of migration on a number of objectively determined (by physician diagnoses) key mental disorders within a large sample of employees. The findings highlight the prevalence and diversity of mental disorders within the active workforce. They also suggest that rural location may well serve as a protective factor against some mental illnesses. The study by Ohler and colleagues ventures further into workplace issues by exploring the highly stigmatized matter of mental illness among practising health professionals, specifically nurses. Significantly, this study not only uncovers a serious workplace problem (the relationship between depression and role overload/job strain) but also identifies those aspects, such as age and respect from co-workers and supervisors, that seem to provide protection against depression.

All four articles address multidimensional determinants of health. The contribution by McCay and colleagues focuses on homelessness, reflecting the increased recognition within the mental health sector of the social determinants of health. It also exemplifies the increased use of multiple (e.g., both quantitative and qualitative) and complex methodologies. The McPherson and McGibbon article underscores the need to ensure that the interconnections among the many and complex factors affecting mental health are considered in policy development. The contributions by Ostry and colleagues and Ohler and colleagues reflect the growing use of large administrative databases in mental health research and the opportunity they afford investigators to explore the complexity of mental illness in specific populations. In particular, Ostry and colleagues employ a provincial population-based data repository that measures all health-service use — one of the benefits of a publicly funded health-care system. While such research efforts are costly, the payoff is worth the investment in terms of the potential to build knowledge that is often simply not available with small-scale explorations.

While all four articles take a conventional problem-based approach to describing specific mental health–related challenges in the workplace, two also identify assets. Ohler and colleagues observe that the incidence of depression is much lower in middle-aged as compared to younger staff nurses. This finding suggests that senior nurses may well have developed coping strategies that could be explored and shared with younger nurses. McCay and colleagues identify moderately high levels of resilience and self-esteem among young people despite their homelessness. This finding reinforces the growing awareness that we need much more research in order to understand how to build capacity among severely disadvantaged populations and how skills might be shared with others. The approaches of these authors reflect the growing interest within the mental health field in strengths-based inquiry. In addition, they reinforce the need for nurses to direct testing towards asset-building interventions rather than confine their efforts to the examination of problem-based interventions.

The Next Challenges and Opportunities

This issue of the Journal highlights areas in mental health that will continue to prevail for the next decade, some involving content, others theory, still others methodology. One obvious content issue is stigma. While abundant investigative work on this subject is currently underway through the MHCC and other organizations, much more is needed. Stigma is highly complex and is not easily remedied, even within a health-service environment. Researchers need to use "world view" theoretical approaches. We need to take lessons from other highly stigmatized issues, such as workplace safety errors (Sorensen et al., 2008), and determine the best ways of changing how we think about mental illness so that it becomes safe to talk about the illness and safe to access services/supports. We also need research that incorporates costly, large-scale, multifaceted methodologies involving, for example, cost-benefit analyses. In this way we should be able to build a knowledge base on savings accrued by a workplace in terms of positive outcomes (e.g., work productivity, family stability) when personnel who disclose their mental illness are fully supported (with insurance and employment benefits, etc.) rather than penalized (with insurance cut-offs and education/employment termination).

Another content issue that will continue to prevail in the next decade concerns mental health promotion and prevention. For far too long, research has concentrated almost exclusively on understanding and treating the disease processes. While such research is necessary, a similar emphasis on understanding and building mental health capacity is long overdue. We need to give much more attention to the testing of programs — for instance, evidence-based population approaches for building capacity to manage emotions (e.g., social and emotional skills through the PATHS program; Greenberg, Kusché, & Mihalic, 1998) at an early age and track the effects (in terms of education, employment, relationship outcomes, and service use) over the long term, into adulthood.

In terms of continuing theoretical issues, we need much more research on the development and testing of "world view" theories, such as complexity theory, to increase our understanding of how factors interact, who they affect, and under what conditions. We also need to step up our research into the best ways of interrupting interactions and/or effecting change. For example, using complexity theory to explore stigma could provide investigators with an opportunity to consider the current and projected economic and health costs of stigma (e.g., increased levels of severe mental illness) and, in turn, possibly present a "critical point," juncture, or "opening" for substantive change in policies and services.

Clearly, exploring the above content and theoretical issues requires complex methodologies, often using large administrative databases (such as publicly funded comprehensive population-based data repositories), and complicated analyses (e.g., hierarchical modelling) with diverse populations (local, national, international). It also requires collaboration by diverse experts from multiple disciplines and sectors. Hence, research efforts should also be directed at exploring the best ways to build productive partnerships. Nurses will continue to play a critical role in these investigative collaborations. I look forward to reading about the results of such efforts in the next *CJNR* issue devoted to mental health and mental illness.

References

Durie, R., & Wyatt, K. (2007). New communities, new relations: The impact of community organization on health outcomes. *Social Science and Medicine, 65*(9), 1928–1941.

Greenberg, M.T., Kusché, C., & Mihalic, S. F. (1998). *Promoting alternative thinking strategies (PATHS): Blueprints for violence prevention*, Vol. 10. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.

Kirby, M. J. L., & Keon, W. J. (2006). *Out of the shadows at last: Transforming mental health, mental illness and addiction services in Canada.* Final Report. Ottawa: Standing Committee on Social Affairs, Science and Technology. Available online: http://www.parl.gc.ca/39/1/parlbus/commbus/senate/com-e/soci-e/rep-e/rep02may06-e.htm.

Sorensen, R., Iedema, R., Piper, D., Manias, E., Williams, A., & Tuckett, A. (2008). Health care professionals' views of implementing a policy of open disclosure of errors. *Journal of Health Services Research Policy, 13,* 227–232.

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Discourse

The Next Steps in the Promotion and Protection of Positive Mental Health

Corey L. M. Keyes

Mental illness has always been seen as problematic but it was not seen as a public health issue until 1996, when the World Health Organization (WHO) published the results of the first Global Burden of Disease study (Murray & Lopez, 1996). The WHO study estimated the total contribution of 107 acute and chronic medical conditions and illnesses by including disability in the equation to calculate disability-adjusted life years (DALYs). The DALY reflects the total number of years in a population that were either lived with disability or abbreviated due to a specific physical or mental condition. Depression was the fourth leading cause of disease burden, accounting for 3.7% of DALYs in 1990 and 4.4% in 2000, and is projected to be 15% of DALYs by 2020 (Ustun, 1999; Ustun, Ayuso-Mateos, Chatterji, Mathers, & Murray, 2004). Therefore, the debate is over as to whether mental illness is a serious public health issue — it is.

The biggest issue facing governments is what can and should be done to reduce the number of cases of mental illness and to reduce the number of people suffering because of it. Most governments choose the de facto approach of providing treatment to more individuals (Chisholm, Sanderson, Ayuso-Mateos, & Saxena, 2004). All evidence indicates that the de facto approach is not reducing the prevalence, burden, or early age of onset of mental disorders (Insel & Skolnick, 2006; Kessler et al., 2005). A viable alternative is mental health promotion, which seeks to elevate levels of positive mental health and protect against its loss (Davis, 2002; Jané-Llopis, Barry, Hosman, & Patel, 2005; Keyes, 2007; Secker, 1998). Whereas treatment targets those who have mental illness, and risk reduction and prevention target those who are vulnerable to mental illness, promotion targets those with good mental health and those with less than optimal mental health — that is, all members of a population.

The WHO (2004) recently highlighted the need to promote mental health, defining positive mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (p. 12). This is good news, because it means that the WHO has caught up with science, where positive mental health has been operationalized under the rubric of subjective well-being, or an individual's evaluation of the quality of his or her life.

Subjective well-being consists of two conceptual traditions. The first equates well-being with feeling good about (i.e., positive emotions towards) one's life. The second champions functioning well in life as an individual and as a citizen. The former reflects the hedonic, the latter the eudaimonic, conception of living a good life. As shown in Table 1, the hedonic tradition focuses on *emotional* well-being, where scholars use measures of avowed satisfaction with life and positive affect (Bradburn, 1969; Diener, 1984; Gurin, Veroff, & Feld, 1960). The tradition of eudaimonia is reflected in research on *psychological* (Ryff, 1989) and *social* (Keyes, 1998) well-being. Here, scholars use multidimensional scales, asking individuals to evaluate how well they see themselves functioning in life as they strive to achieve secular standards of purpose, contribution, integration, autonomy, intimacy, acceptance, and mastery. When subjective well-being is measured comprehensively, studies support the tripartite model consisting of emotional, psychological, and social well-being in US adults (Gallagher, Lopez, & Preacher, 2009), college students (Robitschek & Keyes, 2009), and adolescents (Keyes, 2005b).

The Mental Health Continuum Short Form (MHC-SF) was developed to address the problem of the diagnostic threshold and to create a version more efficiently administered in epidemiological surveillance. The MHC-SF derives from the long form (MHC-LF) used in the Midlife in the United States (MIDUS) study (Keyes, 2002, 2005a). While the MHC-LF consisted of 40 items, the MHC-SF consists of 14 of the most prototypical items representing the construct definition for each facet of well-being. Three items (happy, interested in life, and satisfied) indicate emotional well-being, six items measure the six dimensions of psychological well-being, and five items represent the five dimensions of social well-being. The response option for the short form was changed to measure the frequency (from "never" to "every day") at which respondents experience each sign of mental health during the past month, which provides a clear standard for the assessment and categorization of levels of mental health similar to the survey assessment of mental Major Depressive Episode according to DSM (*Diagnostic and Statistical Manual of Mental Disorders*) criteria.

Feeling good about a life in which one is functioning well, I have argued (Keyes, 2002), constitutes the presence of good mental health.

Table 1 ***Tripartite Structure and Specific Dimensions Reflecting Positive Mental Health***

Hedonia (i.e., emotional well-being) *Positive affect:* cheerful, interested in life, in good spirits, happy, calm and peaceful, full of life *Avowed quality of life:* mostly or highly satisfied with life overall or with domains of life
Positive psychological functioning (i.e., psychological well-being) *Self-acceptance:* acknowledges and is accepting of good and bad aspects of self and personality and holds a positive attitude towards self and personality *Personal growth:* seeks challenges, has insight into own potential, feels a sense of continued development *Purpose in life:* finds own life has direction and meaning *Environmental mastery:* exercises ability to select, manage, and mould personal environs to suit needs *Autonomy:* is guided by own, socially accepted, internal standards and values *Positive relations with others:* has, or can form, warm, trusting personal relationships
Positive social functioning (i.e., social well-being) *Social acceptance:* holds positive attitudes towards, acknowledges, and is accepting of human differences *Social growth (actualization):* believes people, groups, and society have potential to grow *Social contribution:* sees own daily activities as useful to and valued by society and others *Social coherence:* interested in society and social life and finds them meaningful and somewhat intelligible *Social integration:* has a sense of belonging to, and receiving comfort and support from, a community

In the same way that depression requires symptoms of *an*hedonia, mental health consists of symptoms of hedonia. But feeling good is not sufficient for the diagnosis of a clinical state, just as only feeling sad or losing interest in life is not sufficient. Just as major depression consists of symptoms of *mal*functioning, mental health must consist of symptoms of positive functioning. In turn, the mental health continuum (Keyes, 2002) consists of three diagnostic categories, or levels, of positive mental health: flourishing, moderate, and languishing. Individuals with flourishing mental health report feeling at least one measure of hedonic well-being plus six or more of the measures of positive functioning almost every day or or more of the measures of positive functioning almost every day or every day during the past month. Individuals with languishing mental health report feeling at least one measure of hedonic well-being with six or more measures of positive functioning never or maybe once or twice during the past month; languishing is the absence of mental health — a state of being mentally *un*healthy — which is tantamount to being stuck and stagnant, or feeling empty or feeling that life lacks interest or engagement. Individuals who are neither flourishing nor languishing are diagnosed with moderate mental health.

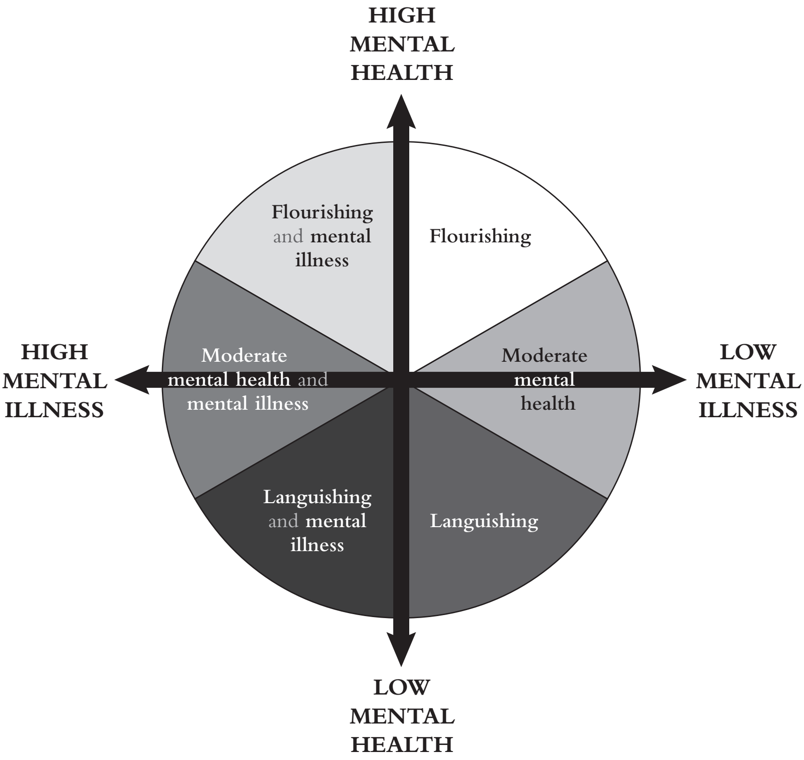
From Measurement to Two Continua

The importance of measuring mental health in the same way as mental illness cannot be overstated, because it allows us to finally adequately test the hypothesis that mental health and mental illness belong to two separate continua. Indeed, mental health promotion and protection is premised on the Two Continua Model, because mental health is presumed to belong to a separate continuum from mental illness (Health and Welfare Canada, 1988). Yet the studies that do exist on the subject measure mental health only emotionally, in terms of life satisfaction or happiness (Greenspoon & Saklofske, 2001; Headey, Kelley, & Wearing, 1993; Huppert & Whittington, 2003; Masse et al., 1998; Suldo & Shaffer, 2008; Veit & Ware, 1983). Numerous studies in mainstream psychology of emotion have shown that positive and negative emotions belong to separate continua (e.g., Bradburn, 1969; Watson & Clark, 1997), but, as discussed above, emotional disturbance or emotional vitality does not in itself constitute a state of mental illness or mental health.

Findings based MHC-LF in the MIDUS study (Keyes, 2005a) support the Two Continua Model, one continuum indicating the presence and absence of positive mental health and the other indicating the presence and absence of mental illness symptoms. For example, the latent factors of mental illness and mental health correlate ($r = -.53$) but only 28.1% of their variance is shared in the MIDUS data (Keyes, 2005a). The Two Continua Model has been replicated in a nationally representative sample of US adolescents (age 12 to 18) with data from the Child Development Supplement of the Panel Study of Income Dynamics (Keyes, 2009), in a national study of Dutch adults (Westerhof & Keyes, 2008, 2010), and in Setswana-speaking South African adults using the MHC-SF (Keyes et al., 2008).

Based on the Two Continua Model shown in Figure 1, individuals can be categorized according to their recent mental illness status and according to their level of mental health — whether languishing, moderate, or flourishing. One implication of the Two Continua Model is that health. In the American adult population between the ages of 25 and 74, just over 75% were free of three common mental disorders during the preceding year: major depressive episode (MDE), panic disorder (PD), and generalized anxiety (GAD). However, while just over three quarters were free of mental illness, only about 20% were flourishing. A second implication of the Two Continua Model is that the presence of mental illness does not imply the absence of mental health. Of the 23% of adults with some mental illness, 14.5% had moderate and 1.5% flourishing mental health. Thus, almost 7 of every 10 adults with a recent mental illness (MDE, PD, or GAD) had moderate or flourishing mental health. While the absence of mental illness does not mean the presence of good mental health (i.e., flourishing), the presence of mental illness does not imply the absence of some level of good mental health.

Figure 1 *Two Continua Model*



Source: Commissioned by the Mental Health Promotion Team of the Winnipeg Regional Health Authority and created by That 2 Graphics, Winnipeg, Manitoba. © Corey L. M. Keyes.

Another important implication of the Two Continua Model is that level of mental health differentiates level of functioning among individuals who are free of mental illness and those who have a mental illness. Put differently, anything less than flourishing mental health is associated with impaired functioning for both those with and those without a mental illness. Findings consistently show that adults and adolescents who are diagnosed with anything less than flourishing mental health have a lower level of functioning in terms of physical health, health-care utilization, missed days of work, and psychosocial issues (Keyes, 2002, 2005a, 2006, 2007, 2009). Overall outcomes to date indicate that individuals who are flourishing function better (e.g., have fewer missed days of work) than those with moderate mental health, who in turn function better than languishing individuals — and this is true for individuals with and without a recent mental illness.

From What to How: Towards Promotion and Protection

Progress has been slow in bringing mental health promotion and protection (MHPP) into the mainstream debates about how to address the problem of mental illness. Admittedly, there has been a deficit of scientific evidence supporting the "promotion" and "protection" axioms of MHPP. Central to the argument behind *promotion* is the hypothesis that gains in level of mental health should decrease the risk of mental illness over time. Central to the argument behind *protection* is the hypothesis that losses of mental health increase the risk of mental illness over time, and therefore efforts should be made to prevent, and respond to, any loss of mental health. Recently published findings (Keyes, Dhingra, & Simoes, in press) from a 10-year follow-up of the MIDUS national sample strongly support the promotion and protection hypotheses.

In 1995 and in the 2005 follow-up of the MIDUS sample, adults completed the Mental Health Continuum Long Form (MHC-LF; Keyes, 2002, 2005a) and the Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998). Studies have shown that the CIDI-SF has excellent diagnostic sensitivity and diagnostic specificity as compared to diagnoses based on the full CIDI in the National Comorbidity Study (Kessler, DuPont, Berglund, & Wittchen, 1999). During a telephone interview, the CIDI-SF was used to assess whether respondents exhibited symptoms indicative of MDE, GAD, and PD during the preceding 12 months.

We found that the prevalent levels of mental health and illness in 1995 and 2005 were similar, suggesting stability. The prevalence of mental illness was about the same in 1995 (18.5%) as in 2005 (17.5%); approximately 8 out of every 10 adults were free of any mental illness in both

1995 and 2005. The prevalence of any mental illness and the absence of mental illness appeared to be stable over time. However, of the 17.5% with a mental illness in 2005, just over half (52%) were "new cases" of mental illness insofar as these adults did not have any of the three mental disorders in 1995. Thus, mental illness is dynamic over time, with about half recovering and being replaced by new cases of mental illness.

The prevalence of flourishing was 3.2% higher in 2005, up from 19.2% in 1995. The prevalence of moderate mental health was 3.7% lower in 2005, down from 64.1% in 1995. The prevalence of languishing was 0.5% higher in 2005, slightly up from 16.7% in 1995. Compared to mental illness, levels of mental health, particularly moderate and flourishing, appear slightly more dynamic at the population level — that is, there was a slight decline in moderate mental health and a slight increase in flourishing mental health at the level of the population. Overall, mental health appears to be relatively stable at the population level. However, only 45% of those languishing in 1995 were languishing in 2005; 51% improved to moderate and 4% improved to flourishing mental health in 2005. Only 51% of those flourishing in 1995 were flourishing in 2005 — 46% declined to moderate and 3% declined to languishing mental health. Two thirds of those with moderate mental health in 1995 had moderate mental health in 2005. Of those with moderate mental health in 1995, about 19% improved to flourishing and 14% declined to languishing in 2005. Like mental illness, level of mental health is dynamic over time.

The Promotion and Protection Hypotheses

The changes in mental health level were strongly predictive of future mental illness. First, the findings support the protection hypothesis. Those who declined to moderate mental health were nearly four times (adjusted[1] odds ratio [OR] = 3.7) more likely to have a mental illness in 2005 as those who stayed flourishing. Thus, the first loss of mental health — from flourishing to moderate — results in a rise in the risk of future mental illness. Adults whose mental health stayed moderate were more than four times (OR = 4.4) as likely to have a mental illness in 2005 as adults whose mental health stayed flourishing. Compared to those who stayed at moderate mental health, those who declined to languishing — almost all of whom had moderate mental health in 1995 — represented an 86% increase in the odds ratio for mental illness in 2005 (i.e., 8.2–4.4

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[1] All regression models controlled for whether respondents had any mental illness in 1995; their age, sex, race, education, marital status, and employment status in 2005; and whether they had any of 25 physical health ailments in 1995.

= 3.2 ÷ 4.4 = .864). Thus, protection against the loss of moderate mental health can mitigate the risk of future mental illness.

The findings also support the promotion hypothesis. Individuals who stayed languishing were more than six times (OR = 6.6) and those who improved to moderate mental health were more than three times (OR = 3.4) as likely to have a mental illness in 2005 as those who stayed flourishing. Compared to staying languishing, improving to moderate mental health cuts the risk of future mental illness by nearly half (i.e., 6.6–3.4 = 3.2 ÷ 6.6 = .484). Individuals who improved to flourishing — most of whom had moderate mental health in 1995 — had no greater risk of future mental illness than those who stayed flourishing.

Individuals who had any of the three mental illnesses in 1995 were five times (OR = 5.0) more likely than those who stayed flourishing to have one of the same three illnesses in 2005. Our findings illustrate that the absence of flourishing mental health is as great a risk factor for future mental illness as starting with one of the mental illnesses. Almost half of the sample who were free of mental illness in 1995 but had moderate mental health in 2005 (i.e., 7.8% declined + 35.5% stayed + 4.7% improved = 48% with moderate mental health in 2005) had nearly the odds of having a mental illness in 2005 as the 18.5% who had a mental illness in 1995. Moreover, 1 in 10 of the sample free of any mental illness in 1995 but with languishing mental health in 2005 (i.e., 3.9% stayed + 6.5% declined = 10.4% with languishing in 2005) had greater odds of having a mental illness in 2005 than the 18.5% who had a mental illness in 1995. In short, nearly 6 in every 10 American adults (i.e., 48% with moderate + 10.4% with languishing mental health = 58.4%) otherwise free of MDE, GAD, or PD are at the same or even greater risk for a future mental illness as individuals who had one of those mental disorders to start with.

Conclusion

Research supports the two fundamental axioms of MHPP for addressing the mental illness and mental health needs of the population. First, gains in mental health resulted in decreasing odds of mental illness over time, which suggests that promoting mental health could reduce the incidence and prevalence of mental illness. Second, losses of mental health served to increase the odds of developing mental illness over time, which suggests that protecting against loss of mental health could reduce the incidence and prevalence of mental illness. Third, mental health is dynamic over time, although the point prevalence estimates of any mental illness and level of mental health appear stable from 1995 to 2005. The reason for this apparent stability is that approximately half of the mental illness in 2005 represents new cases, while half of those flourishing in 2005 were new cases and over half of those languishing in 2005 were new cases.

Further, research suggests that governments should invest in MHPP to keep pace with the rise in mental illness — that is, to prevent new cases. While having had a mental illness in the past is a good predictor of future mental illness, the absence of mental health is an equally good and in some cases better predictor of future mental illness. Nearly 60% of the US adult population free of mental illness but with less than optimal mental health are at the same or greater risk of a future mental illness as individuals who already have a mental illness. Failure to address the absence of positive mental health in populations runs the risk of failing to attack the problem of mental illness.

Ultimately, the results summarized here raise questions for (1) national public mental health goals, and (2) the development of effective techniques and interventions for MHPP. Governments and public health officials can no longer blithely announce that they seek to promote the mental health of their population while investing mainly in the treatment and study of mental illness. The Two Continua Model reveals this to be a "wanting-doing gap" in public health policy, where policies proclaim national efforts to seek *health* but foster activities directed primarily or solely at *illness.* If we want better mental health, we must focus on positive mental health — promote flourishing and protect against its loss. Governments cannot promote mental health solely by reducing mental illness, and no amount of wishful thinking will make it so. Nations can ignore the science supporting the Two Continua Model, but this will serve only to sacrifice more lives to the recurrent, chronic, and currently incurable condition of mental illness. The alternative, and complementary, approach to treatment is public mental health promotion and protection.

The question is no longer whether mental illness is a public health issue and whether we have an alternative to reduce mental illness. It is a public health issue and we do have an alternative. Research has shown where members of the public and governments *should* want to be. The debate, then, is not about where we want to be — we want to be flourishing.

The next step for researchers and practitioners is to determine how to get more people to stay flourishing or to become flourishing. Those in public health and government who expect immediate answers as to how best to promote and protect are not being fair or realistic. It takes time and financial support. The National Institute of Mental Health in the United States was created by an act of Congress in 1946 and set to work in earnest in 1949. Today, billions of taxpayer dollars are spent annually by well-intentioned leaders for the study and treatment of mental illness (National Institute of Mental Health, 2010). If it wants good mental health in the population, the government must provide the same realistic time-frame and financial support to MHPP. Imagine where we in the United States might be today had we begun the war on mental illness 50 years ago by promoting and protecting mental health — fewer mentally ill because more people are flourishing in life.

References

Bradburn, N. M. (1969). *The structure of psychological well-being.* Chicago: Aldine.

Chisholm, D., Sanderson, K., Ayuso-Mateos, J. L., & Saxena, S. (2004). Reducing the global burden of depression: Population-level analysis of intervention cost-effectiveness in 14 world regions. *British Journal of Psychiatry, 184,* 393–403.

Davis, N. J. (2002). The promotion of mental health and the prevention of mental and behavioral disorders: Surely the time is right. *International Journal of Emergency Mental Health, 4,* 3–29.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95,* 542–575.

Gallagher, M. W., Lopez, S. J., & Preacher, K. J. (2009). The hierarchical structure of well-being. *Journal of Personality, 77,* 1025–1049.

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research, 54,* 81–108.

Gurin, G., Veroff, J., & Feld, S. (1960). *Americans view their mental health.* New York: Basic Books.

Headey, B., Kelley, J., & Wearing, A. (1993). Dimensions of mental health: Life satisfaction, positive affect, anxiety, and depression. *Social Indicators Research, 29,* 63–82.

Health and Welfare Canada. (1988). *Mental health for Canadians: Striking a balance.* Ottawa: Supply and Services Canada.

Huppert, F. A., & Whittington, J. E. (2003). Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *British Journal of Health Psychology, 8,* 107–122.

Insel, T. R., & Scolnick, E. M. (2006). Cure therapeutics and strategic prevention: Raising the bar for mental health research. *Molecular Psychiatry, 11,* 11–17.

Jané-Llopis, E., Barry, M., Hosman, C., & Patel, V. (2005). Mental health promotion works: A review. *Promotion and Education, 12*(Suppl 2), 9–25.

Kessler, R. C., Andrews, G., Mroczek, D., Ustun, B., & Wittchen, H.–U. (1998). The World Health Organization Composite International Diagnostic Interview-Short Form (CIDI-SF). *International Journal of Methods in Psychiatric Research, 7,* 171–185.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry, 62,* 593–602.

Kessler, R. C., DuPont, R. L., Berglund, P., & Wittchen, H-U. (1999). Impairment in pure and comorbid generalized anxiety disorder and major depression at 12 months in two national surveys. *American Journal of Psychiatry, 156*, 1915–1923.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly, 61,* 121–140.

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43,* 207–222.

Keyes, C. L. M. (2005a). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73,* 539–548.

Keyes, C. L. M. (2005b). The subjective well-being of America's youth: Toward a comprehensive assessment. *Adolescent and Family Health, 4,* 3–11.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76,* 395–402.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62,* 95–108.

Keyes, C. L. M. (2009). The nature and importance of positive mental health in America's adolescents. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in schools* (pp. 9–23). New York: Routledge.

Keyes, C. L. M., Dhingra, S. S., & Simoes, E. J. (in press). Level of positive mental health predicts risk of mental illness. *American Journal of Public Health.*

Keyes, C. L. M., Wissing, M., Potgieter, J. P., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the Mental Health Continuum Short Form (MHC-SF) in Setswana-speaking South Africans. *Clinical Psychology and Psychotherapy, 15,* 181–192.

Masse, R., Poulin, C., Dassa, C., Lambert, J., Belair, S., & Battaglini, A. (1998). The structure of mental health higher-order confirmatory factor analyses of psychological distress and wellbeing measures. *Social Indicators Research, 45,* 475–504.

Murray, C. J. L., & Lopez, A. D. (Eds.) (1996). *The global burden of disease: A comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020.* Cambridge, MA: Harvard School of Public Health.

National Institute of Mental Health. (2010). *Fiscal year 2010 budget.* Retrieved August 2, 2010, from www.nimh.nih.gov/about/budget/cj2010.shtml.

Robitschek, C., & Keyes, C. L. M. (2009). The structure of Keyes' model of mental health and the role of personal growth initiative as a parsimonious predictor. *Journal of Counseling Psychology, 56,* 321−329.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57,* 1069–1081.

Secker, J. (1998). Current conceptualizations of mental health and mental health promotion. *Health Education Research, 13,* 57–66.

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review, 37,* 52–68.

Ustun, T. B. (1999). The global burden of mental disorders. *American Journal of Public Health, 89,* 1315–1318.

Ustun, T. B., Ayuso-Mateos, J. L., Chatterji, S., Mathers, C. D., & Murray, C. J. L. (2004). Global burden of depressive disorders in the year 2000. *British Journal of Psychiatry, 184,* 386–392.

Veit, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology, 51,* 730–742.

Watson, D., & Clark, L. A. (1997). The measurement and mismeasurement of mood: Recurrent and emergent issues. *Journal of Personality Assessment, 86,* 267–296.

Westerhof, G. J., & Keyes, C. L. M. (2008). Mental health is more than the absence of mental illness. *Monthly Mental Health* (in Dutch with summary in English), *63,* 808–820.

Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The Two Continua Model across the lifespan. *Journal of Adult Development, 17,* 110–119.

World Health Organization (2004). *Promoting mental health: Concepts, emerging evidence, practice.* Summary report. Geneva: Author.

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Résumé

Les défis et les forces chez les jeunes vivant dans la rue, sur le plan de la santé mentale : le besoin de mettre en place une approche multi-déterminée

Elizabeth McCay, John Langley, Heather Beanlands, Linda Cooper, Naomi Mudachi, Andrea Harris, Rebecca Blidner, Karen Bach, Colin Dart, Carol Howes, Susan Miner

Les activités sociales des jeunes sans-abri et les milieux qu'ils fréquentent entraînent souvent un mode de vie nocif menant à la toxicomanie, au sexe de survie, à des comportements autodestructeurs et à des tendances suicidaires. Dans le cadre de cette étude, une approche à méthodes mixtes a été utilisée pour évaluer les défis et les forces chez les jeunes vivant dans la rue, sur le plan de la santé mentale. Un échantillon de commodité composé de 70 jeunes sans-abri a répondu à une série de questionnaires normalisés, lesquels visaient à évaluer l'état de santé mentale, la résilience et l'estime de soi de ces jeunes. Les chercheurs ont aussi tenu deux groupes de discussion avec pour but de cerner les perceptions qu'ont les jeunes vivant dans la rue quant à leurs besoins en santé mentale. L'étude a révélé chez cette population (âgée de 16 à 24 ans) d'importants taux de troubles mentaux, comparativement à d'autres groupes de jeunes adultes. Toutefois, ces jeunes affichaient des taux de résilience et d'estime de soi modérément élevés. Par conséquent, la mise en place de programmes et d'interventions en santé mentale tenant compte à la fois des forces et des défis pourraient aider les jeunes vivant dans la rue, dans leur démarche pour réintégrer la société et, en bout de ligne, améliorer leur qualité de vie.

Mots clés : santé mentale

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Mental Health Challenges and Strengths of Street-Involved Youth: The Need for a Multi-determined Approach

Elizabeth McCay, John Langley, Heather Beanlands, Linda Cooper, Naomi Mudachi, Andrea Harris, Rebecca Blidner, Karen Bach, Colin Dart, Carol Howes, Susan Miner

The social environments and activities of homeless youth frequently create a downward spiral, leading to drug abuse and survival sex as well as self-harm behaviours and suicidality. This study employed a mixed-methods approach to assess the mental health challenges and strengths of street-involved youth. A convenience sample of 70 homeless young people completed a series of standardized questionnaires evaluating mental health symptoms as well as resilience and self-esteem. Two focus groups were also held to capture the perceived mental health needs of street-involved youth. These young people (aged 16–24) were found to have high levels of mental health symptoms compared to other groups of young adults. However, they also exhibited moderately high levels of resilience and self-esteem. Therefore, multi-component mental health programs and interventions that address both strengths and challenges may well help street-involved youth to work towards social re-integration and, ultimately, improved quality of life.

Keywords: determinants of health, mental health/pyschosocial, vulnerable populations, youth health

Introduction

Nearly two decades ago, Kurtz, Jarvis, and Kurtz (1991) made the observation that the underlying causes of homelessness in youth (e.g., the need to escape abuse; being thrown out of the home) are frequently linked to mental health challenges. For youth living on the street, mental illness may be a major risk factor for homelessness or may emerge in response to the need to cope with the multitudinous stressors associated with life on the street (Adalf & Zdanowicz, 1999). These stressors include exposure to violence, pressure to participate in survival sex, and drug use (Kipke, Simon, Montgomery, Unger, & Iversen, 1997; Morrell-Bellai, Goering, & Boydell, 2000; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). Researchers have made the observation that living on the street may in fact exacerbate existing mental illness in these young people (Whitbeck, Johnson, Hoyt, & Cauce, 2004), with a number of studies documenting high rates of mental health problems in street-involved youth (Boivin, Roy, Haley, & Galbaud du Fort, 2005; Sleegers, Spijker, Van Limbeek, & Van Engeland, 1998). Other studies document significant levels of mental illness in homeless and runaway youth (including major depressive disorder, post-traumatic stress disorder, and substance abuse) in US cities (Fietal, Margetson, Chamas, & Lipman, 1992; Rhode, Noell, Ochs, & Seeley, 2001; Whitbeck et al.). McCaskill, Toro, and Wolfe (1998) compared samples of homeless and housed youth in the Detroit area and found elevated levels of disruptive behaviour and alcohol abuse in the homeless sample. While a review of mental health needs in adult homeless populations is beyond the scope of this article, it is worth noting that there is literature indicating that mental health challenges and symptoms are associated with chronic homelessness, further demonstrating the need to address the mental health requirements of street-involved youth (North, Pollio, Smith, & Spitznagel, 1998).

It is evident from the literature that youth who are living on the street are highly vulnerable and are predisposed to mental health problems. The social environments of these young people frequently create a downward spiral, leading to drug abuse and survival sex (Slesnick, Prestopnik, Meyers, & Glassman, 2007) as well as chronic homelessness and suicide (Kidd & Kral, 2002). Further, McManus and Thompson (2008) report that homeless adolescents are particularly vulnerable to trauma-related symptoms given their high level of exposure to dangerous conditions such as impoverishment and constant threats to survival. What is particularly disturbing is the extremely high rate of suicide and attempted suicide amongst homeless youth; the rate of attempted suicide in this group is 10.3 times the average for Canadian youth (Kidd & Kral), while suicide has been found to be the leading cause of death amongst homeless youth (Roy et al., 2004).

Despite the pervasive hardship experienced by homeless youth, there are indications that a strong sense of psychological resilience may exist in the midst of the chaos experienced by homeless adolescents and young adults (Adalf & Zdanowicz, 1999; Kidd & Shahar, 2008). Rew (2003) interviewed 15 homeless young people in a qualitative study of attitudes towards self-care. The findings revealed that these youth regarded leaving home as an important first step in taking care of themselves and gaining self-respect. Life on the street entailed forming relationships with peers and learning how to manage many obstacles. A secondary content analysis of data obtained from several qualitative studies (Rew & Horner, 2003) demonstrated the will of youth to move beyond life on the street. Specific actions included seeking resources, focusing on self-improvement, gaining emotional maturity, acquiring skills, and adopting healthier behaviours. In addition, a quantitative study with 208 homeless youths in New York City and Toronto (Kidd & Shahar) identified a critical relationship between self-esteem and resilience, further indicating the need to pay attention to these protective factors amongst this vulnerable population.

Notwithstanding the current literature related to the mental health of homeless youth, there is an urgent need for careful assessment of the level of unmet mental health needs amongst this population (Rhode et al., 2001). The purpose of the present study was to conduct a comprehensive mental health assessment of homeless youth to increase our understanding of the challenges and strengths pertaining to street-involved youth. Although a number of studies have described the mental health challenges of street-involved youth, the present study is unique in that it employed a mixed-methods approach to describe both mental health challenges and strengths. Ultimately, it was expected that the results would provide direction for a targeted mental health intervention to strengthen mental health and support the overall functioning and capacity of homeless young people to engage in social re-integration.

The terms homeless youth and street youth are used interchangeably in the literature (Hwang, 2001). However, the term street-involved youth will be used throughout this article and refers to people between the ages of 16 and 24 who have been without a home for a minimum of 1 month.

Methods

Study Design

The study employed a mixed-methods approach (quantitative and qualitative methods). This article reports on the quantitative findings as well as a component of the qualitative findings — specifically, those pertaining to two focus groups of eight to ten participants each. The quantitative component of the study used a cross-sectional descriptive design. Focus group questions targeted self-perceptions of the mental health needs of street-involved youth as well as identification of services and strategies that could be helpful in meeting those needs. The focus groups were audiorecorded and the recordings were transcribed verbatim.

Procedures

A convenience sample of young people was recruited from four community agencies in Toronto for either the quantitative or the qualitative component of the study. The community agencies all provided a range of services to street youth, including shelter, drop-in services, and sexual health services. Approval was obtained from the appropriate institutional ethics review board. Inclusion criteria were as follows: (a) aged 16 to 24; (b) being without a home or place of one's own for at least 1 month; (c) ability to read, comprehend, and speak English; and (d) capacity to give informed consent. Staff in the community agencies invited eligible young people to participate in the quantitative component of the study. If a youth expressed interest in the study, research assistants obtained informed consent and administered the questionnaire for the quantitative component (described below), which took approximately 60 to 90 minutes. Two experienced research assistants administered the questionnaires in a supportive interview format. The participants were encouraged to take a break if they found the process arduous and the research assistants checked with them at the end of the interview to inquire whether they needed additional support. The majority of young people stated that participating in the study gave them a feeling of accomplishment. Those who expressed suicide ideation were referred directly by the research assistant to agency staff members, who were readily available to the participants.

On a separate occasion, different young people who met the same inclusion criteria were recruited to participate in the two focus groups to give their perspective on mental health needs. The focus groups were conducted in a supportive manner, with additional support available as required.

Participants were paid $20 for taking part in the quantitative component and $10 for taking part in a focus group. The data were collected between 2005 and 2007.

Study Measures

The questionnaires were selected in accordance with the overall purpose of the study, to assess both mental health challenges and strengths for the participants. The questionnaires have demonstrated satisfactory levels of reliability and validity in youth populations and require a Grade 6 to Grade 8 reading level. Sample characteristics include indicators of suicidality, self-harm, and sociodemographic factors in order to provide a comprehensive description of the sample.

Mental health challenges. The Symptom Checklist 90 (SCL-90) (Derogatis, 1994) is a self-report scale that measures symptoms of major mental illness. It has consistently demonstrated sound levels of reliability with favourable evaluations of content, concurrent, and discriminant validity (Groth-Marnat, 2009). The SCL-90 allows for assessment of severity of symptoms rather than just the presence or absence of a particular diagnosis.

The Centre for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) is a 20-item measure of psychological distress and depression that has been used in studies with street-involved young people and adults. This measure of depression has high reported levels of internal consistency as well as excellent concurrent and construct validity (Radloff).

The Beck Hopelessness Scale (BHS) (Beck, Weissman, Lester, & Trexler, 1974) is a 20-item measure designed for the detection and assessment of hopelessness in a variety of populations. The BHS has demonstrated high levels of internal consistency and a high degree of correlation with clinical and self-report measures of hopelessness (Beck et al.).

Mental health strengths. The Resilience Scale (RS) (Wagnild & Young, 1993) is a 25-item self-report scale that measures resilience, a positive personality characteristic that enhances individual adaptation. The RS has demonstrated high levels of internal consistency and concurrent validity (Wagnild & Young).

The Rosenberg Self-Esteem scale (RSE) (Rosenberg, 1979) is a well-validated 10-item self-report inventory developed to measure global self-worth. The RSE has been shown to have consistently high levels of internal consistency as well as convergent and discriminate validity (Sinclair et al., 2010).

Characteristics of the sample. The Juvenile Victimization Questionnaire (JVQ) was used in this study to assess level of physical and sexual abuse. The JVQ was originally developed to provide a comprehensive inventory of childhood victimization (Finkelhor, Ormrod, Turner, & Hamby, 2005).

Items were adopted from the Deliberate Self-Harm Inventory (SHQ) (Gratz, 2001) to assess deliberate self-harm behaviours without suicidal intent. These items asked participants to report on deliberate self-harm behaviour in general over a range of time periods. The purpose was to determine whether participants engaged in self-harm in a minimally intrusive manner.

The Depressive Symptom Index: Suicidality Subscale (DSI-SS) is a brief measure containing four items from the Hopelessness Depression Symptom Questionnaire (Joiner, Pfaff, & Acres, 2002).

The Michigan Alcoholism Screening Test (MAST) is a tool widely used to screen for alcoholism in adults. The original MAST was modified by Snow, Thurber, and Hodgson (2002) for use with adolescents regarding the use of substances as well as alcohol. This revised adolescent version of the MAST scale has had limited psychometric testing and therefore was used to obtain an overall indication of the degree of harmful substance use amongst the participants.

Participants in the quantitative component of the study were asked to report their age, gender, current living situation, relationship status, use of mental health services, and length of time in their current living circumstances.

Data Analysis

For the quantitative component of the study, descriptive statistics (measures of central tendency and dispersion; frequency distribution) were used to exemplify characteristics of the sample and to provide mean scores for measures of mental health challenges and strengths. These scores were compared to relevant mean scores obtained from several studies in the literature (see Table 1). In keeping with the purpose of this study — to increase our understanding of mental health challenges and strengths amongst street-involved youth — Pearson product moment correlations were computed between measures of mental health challenges and strengths as well as with continuous variables descriptive of

Table 1 ***Means and Standard Deviations for Mental Health Variables Amongst Study Sample and Comparative Sample***

	Study Sample Mean *(SD)*	**Comparative Sample Mean *(SD)***
SCL-90 Dimensions		
Somatization	1.24 (0.87)	0.70 (0.53)[a]
Obsessive-compulsive	1.55 (0.89)	1.16 (0.65)
Interpersonal sensitivity	1.19 (0.96)	1.17 (0.74)
Depression	1.40 (0.90)	1.29 (0.69)
Anxiety	1.20 (0.91)	1.10 (0.62)
Hostility	1.28 (0.99)	1.75 (0.81)
Phobic anxiety	0.82 (0.92)	0.78 (0.52)
Paranoid ideation	1.37 (1.02)	1.63 (0.73)
Psychoticism	0.94 (0.85)	1.08 (0.61)
Depression (CES-D)	20.57 (12.68)	15.75 (9.28)[b]
Hopelessness (BHS)	4.77 (4.43)	3.51 (4.16)[c]
Resilience Scale (RS)	130.27 (24.54)	111.98 (17.6)[d]
Rosenberg Self-Esteem Scale (RSE)	29.40 (6.18)	30.26 (5.86)[e]

[a] McCaskill, Toro, & Wolfe (1998).
[b] Meyer & Hautzinger (2003).
[c] Brausch & Muehlenkamp (2007).
[d] Rew, Taylor-Seehafer, Thomas, & Yockey (2001).
[e] Chubb, Fertman, & Ross (1997).

the sample. A thematic analysis (Boyatzis, 1998) of the focus group transcripts was conducted to identify themes that might extend our understanding of quantitative data related to mental health needs from the perspective of the participants. The focus group transcripts were read and reread independently by a subset of the research team to identify themes, as described above. After extensive discussion, the coding scheme was developed by consensus. The transcripts were then coded by experienced research assistants and the first author. The first author (EM) validated all coding by the research assistants.

Quantitative Results

Characteristics of the Sample

In total, 70 youths participated in the study and completed the questionnaires. The participants ranged in age from 16 to 24, with a mean age of 20.21. The majority were male (*n* = 48). The participants reported a range of living situations: shelters (*n* = 39), transitional housing (*n* = 4), rough on the street (*n* = 13), couch surfing (*n* = 6), or a variety of unstable housing arrangements (*n* = 8). The mean length of time living in the current situation, which included shelters or rough on the street, was 456 days (15 months). The mean number of years of education reported by participants was 10.5. The majority of participants (*n* = 55) reported being unemployed at the time of the study. When asked if they had ways of making money other than employment, approximately a third of the participants indicated a range of activities, including: receiving a personal needs allowance from the shelter (*n* = 9); receiving welfare (*n* = 3); selling drugs (*n* = 2); panhandling, escorting, and working the street (*n* = 4); or receiving some help from parents (*n* = 2). A majority of participants identified relationships, specifically with extended family members (*n* = 32) or peers (*n* = 31), as very important either currently or in the past. Of the participants, 36% (*n* = 25) reported being in an intimate relationship at the time of the study. Only 24% of the sample reported using mental health services during the preceding month.

Abuse. A substantial proportion of the participants were victims of physical and/or sexual abuse. Specifically, 61% (*n* = 43) of participants reported being physically assaulted by an adult at some point in their lives, with the majority of those identifying the perpetrator as an adult family member. Just over 25% (*n* = 19) of participants reported a history of sexual abuse, with the majority of those identifying the perpetrator as someone they knew but only five identifying the perpetrator as a family member. All but two of the participants who reported sexual abuse also reported physical abuse.

Self-harm and suicidality. Of the participants, 41% (*n* = 29) reported engaging in acts of deliberate self-harm, as measured by the SHQ. Further, 31.4% of participants reported suicide ideation, as indicated by a DSI-SS score greater than 1 (Joiner, Pfaff, & Acres, 2002). Further, 58.6% of the sample reported a high level of alcohol and/or drug abuse.

Mental Health Challenges

Table 1 presents the means and standard deviations for the sample and comparative data pertaining to mental health challenges. Overall, the participants had high scores for mental health symptoms (SCL-90), depression (CES-D), and hopelessness (BHS). Mean scores on the same measures obtained from the literature are provided for comparison purposes. Specifically, the participants in this study had similar or elevated levels of mental health symptoms compared to 118 American urban homeless adolescents (McCaskill et al., 1998). The participants also demonstrated higher mean scores on measures of depression (CES-D) and hopelessness (BHS) than those in the literature. The comparative data for the CES-D were obtained from a sample of 1,639 postsecondary students in Germany with a mean age of 19.10 (Meyer & Hautzinger, 2003). The comparative data for the BHS were taken from a sample of 231 American high-school students with a mean age of 15.7 (Brausch & Muehlenkamp, 2007). In addition, approximately one third of the participants in the present study (*n* = 24) reported one or more psychiatric diagnoses, with depression and other mood disorders being the most frequently reported. Additional diagnoses identified were schizophrenia, post-traumatic stress disorder, anxiety disorders, personality disorders, substance abuse, and anorexia.

Mental Health Strengths

Table 1 presents the means and standard deviations for the sample and comparative data pertaining to mental health strengths. Overall, the participants demonstrated moderate levels of resilience (*M* = 130.27; *SD* = 24.54) and reasonably high levels of self-esteem (*M* = 29.40; *SD* = 6.18). Specifically, resilience scores were elevated compared to another sample of street youth (*M* = 111.98; *SD* = 17.6) (Rew et al., 2001), the majority of whom reported sleeping outdoors, whereas the majority of participants in the present study reported sleeping in shelters. Comparison with other vulnerable groups, such as adolescent mothers (*M* = 146.6; *SD* = 14.08) (Black & Ford-Gilboe, 2004) and battered women (*M* = 143.1; *SD* = 24.00) (Humphreys, 2000), further suggests a moderate level of resilience amongst the participants in the present study. The participants demonstrated self-esteem levels similar to those of 18-year-old high-school students (*M* = 30.26; *SD* = 5.86) (Chubb, Fertman, & Ross, 1997), indicating reasonably high levels of self-esteem.

Table 2 ***Correlations Between Challenges and Strengths***

	SCL-90	CES-D	BHS	DSI-SS
RS	–.504*	–.541*	–.469*	–.375**
RSE	–.731*	–.719*	–.688*	–.581*

* $p < .000$ ** $p < .001$

RS = Resilience Scale
RSE = Rosenberg Self-Esteem Scale
SCL-90 = Symptom Checklist 90
CES-D = Centre for Epidemiologic Studies Depression Scale
BHS = Beck Hopelessness Scale
DSI-SS = Depressive Symptom Index-Suicidality Subscale

Mental Health Challenges and Strengths

As indicated above, correlations were calculated between measures of mental health challenges and strengths, as well as with continuous variables descriptive of the sample, in order to gain an understanding of the relationships amongst the study variables. The scores on measures of mental health challenges (SCL-90, CES-D, BHS, and DSI-SS) were all statistically negatively correlated with scores on measures of mental health strengths (RS & RSE) (Table 2). Specifically, increased levels of mental health challenges, such as depression, hopelessness, and suicide ideation, were significantly associated with decreased levels of resilience and self-esteem. In addition, characteristics of the sample, such as age, length of time without a home, education, and employment, were not significantly correlated with measures of mental health challenges and strengths.

Qualitative Results

Focus Group Data

Two focus groups, each with eight to ten participants, were conducted in order to elicit the youths' perception of their mental health needs. Four themes emerged from the data: *surviving life on the street, living with mental health challenges, finding strength in the midst of challenges,* and *seeking supportive relationships.* These broad themes encompass the complexity of circumstances, feelings, and emotions that emerged in the context of these young people's lives. In this report, those qualitative themes that best facilitate the understanding of both challenges and strengths (*living with mental health challenges* and *finding strength in the midst of challenge)* are described. Thus the qualitative data are being used to explicate the quantitative findings, a mixed-methods approach that is described by Creswell (2003). It is important to note that even though the quantitative and qualitative samples were composed of different participants, they were recruited from the same settings, during the same time period, based on the same inclusion and exclusion criteria. It is thus reasonable to expect that the different perspectives would inform one another. A full report of the study's qualitative findings will be published separately.

Living With Mental Health Challenges

Overall, the findings from the focus group data are consistent with the quantitative data, with participants describing a wide range of mental health challenges, including specific mental health symptoms such as depression, suicide ideation, and substance abuse. Focus group participants observed that mental health issues associated with homelessness arise from a complex interplay of factors. Overall mental health challenges were thought to result from being street-involved or as a consequence of mental health issues that participants may have been living with for some time. The perceived link between mental health issues and the stress of being homeless described by a number of youths is illustrated in the comment of a focus group participant:

> *[Living on the street] is like the universe hit you over the head with a two-by-four, and it's confusion. Where do I go from here? . . . I'm just so scattered right now . . . It's just confusion. And that's sometimes the most frustrating thing, because you're confused, it's like you can't even use your own resources because you're still unsure of what to do.*

Several participants observed that, for people who are homeless, depression may be related to a number of circumstances associated with homelessness, such as drug use or lack of friends, as illustrated by the words one participant:

> *. . . when you're homeless . . . you do get depressed, you do get lonely sometimes . . . Most homeless have serious depression . . . and it may come from drug use . . . or not having friends.*

Many participants also indicated that a *pre-existing mental illness* or set of challenges contributed to their state of homelessness. Specific illnesses included depression, bipolar illness, and eating disorders. Other issues included anger, interpersonal insensitivity, self-harm, and suicidality. It was clear that a number of youths had ongoing mental health challenges, as evidenced by the following comment:

> *I've been through a lot growing up, but I never started dealing with it until I was about 17/18. I'm now 21. . . . And it affects not only you but everybody around you and stuff like that. . . . I used [to be] the type of person that, if someone said something to me or looked at me wrong, instead of . . . just walking away I'd, like, beat the person up. . . . But now*

> *. . . I still have that anger but it's under control a little. I'm still working on it.*

Participants indicated that the perception of stigma was pervasive to the experience of being homeless, resulting in an overall sense of shame and low self-esteem. Perceptions of stigma, misunderstanding, and neglect by society were evident:

> *One of the biggest problems with youth is, like, neglect. We've been neglected a million times. [We join a] program that's good for us and then it's gone.*

The participants also emphasized the stigma of mental illness. There was a sense that the stigma associated with mental health challenges profoundly affects people's sense of self-worth, perhaps even exceeding the burden of stigma experienced by street youth generally. A number of participants perceived that it was risky to disclose their mental health challenges to shelter staff. The perceived risk of disclosing to staff seemed to be especially high if a trusting relationship had not been established:

> *I wouldn't be comfortable with staff asking me if I have a mental illness . . . just like how I'm not comfortable with them asking me if I'm Black, Asian, White, or whatever on a piece of paper of any sort. I just feel like it could lead to a very uncomfortable feeling of discrimination or just something you don't feel like you need to reveal on intake. You know what I mean? You know, after being supported by a worker after a couple of months of getting to know someone, maybe the comfort might be there and I might want to reveal something like that, knowing that there won't be any repercussions. But for now, like, no way.*

Along with the perceived stigma of homelessness and mental illness, there was a pervasive sense of scepticism about psychiatric treatment — specifically, having a diagnosis and using prescribed medications. Some participants had received a number of different diagnoses. One youth expressed the view that psychiatrists might even lie about diagnoses. On the other hand, a number of participants described positive, exceedingly helpful relationships with agency staff:

> *And they, the staff, one of the staff would come in here, talk to us, and say what we would call input into what things happened in here. This place has helped a lot of people out, especially me.*

Finding Strength in the Midst of Challenge

In spite of the wide range of mental health challenges faced by these young people, areas of strength and resilience were apparent for the majority of participants. It was evident that the majority wanted to *strive for a better life,* even though many obstacles still lay ahead. There was also a sense of purpose, that obstacles to a better life could be overcome, a perspective consistent with the theoretical standpoint of resilience — specifically, the capacity to adapt to life's challenges (Hunter & Chandler, 1999). For example, one participant showed a remarkable degree of determination to move beyond his current situation. Also apparent was the level of danger inherent in the struggle: Risks must be surmounted, or one could wind up dead:

> *Like, okay, I'm homeless . . . I'm not going to beat myself up about it. Because if I do that, I'm just going to stay homeless. That's how people die in the woods, you know what I mean? They just sit there and they're like, "How did I get myself in this position?" . . . because they're not going out and trying to survive, like, get food, you know what I mean? And, I don't know . . . I plan everything. So I became homeless. Okay, what do I have to do? Whatever it takes to get me money to get a house of some kind, maybe, you know, some kind of shelter, other than a shelter.*

It was clear that these young people had acquired a number of skills and attributes (typically associated with resilience) that would help them to "deal with the obstacles" that were anticipated in the future. For example, one of the focus group participants, who lived in a shelter, spoke about the need to not dwell on the negative:

> *You just keep moving. Sometimes you're not focusing on the negative . . . So I have to, like, find a day a week where no one knows where I am. Just get away . . . For me, it's reading, reading something inspirational — philosophy. I usually go to [bookshop] and just sit down with a book, for, like, maybe half an hour.*

For a number of participants, there was recognition that focusing on the positive — specifically, having a positive attitude — was beneficial. One youth explained that it was not helpful to be down on oneself:

> *If you beat yourself up about things, you're just going to feel bad . . . and it's going to keep getting worse. Trust me, I've been there. But I've learned to not beat myself up like that.*

Participants also emphasized the benefits of positive role models and a comfortable environment. In particular, a few youths thought that it would be beneficial to hold focus groups such as those described in this study in a university setting, as the environment would be motivating and comfortable:

> *It's all in the setting, in making the people feel comfortable in opening up. I'm sure that we'd feel more comfortable out somewhere [the university],*

> *you know, idealistic, that we are able to pick as a setting as opposed to the side room at [the shelter].*

They also described the value of talking with peer role models. Generally, the participants felt that they would be more open to consulting with other youth who were close to them in age and who knew what it was like to deal with similar issues:

> *. . . a peer-to-peer kind of thing, you know. You may feel comfortable talking to someone who's close to your own age as opposed to someone who's older . . . you may look at them as an authority as opposed to a friend.*

Discussion

The purpose of this study was to gain a deeper understanding of the challenges and strengths pertaining to mental health for street-involved youth, in order to ultimately provide direction for intervention. Overall the quantitative findings demonstrate high levels of mental health symptoms amongst the sample of street youth. The quantitative data also indicate that one third of the participants reported living with pre-existing illnesses (e.g., depression, bipolar disorder, anxiety disorders). In addition, the majority of participants had experienced physical abuse, one quarter had been sexually abused, and a substantial number expressed suicide ideation. About one half of the participants had engaged in self-harm and virtually all engaged in harmful use of alcohol and substances. These findings are consistent with those documented by previous studies (Boivin et al., 2005; Fisher, Florsheim, & Sheetz, 2005; McCaskill et al., 1998; Whitbeck et al., 2004). The qualitative findings further illuminate the quantitative findings, highlighting the clear relationship between the stress of homelessness and emotional distress as well as the role of pre-existing mental health challenges and homelessness.

In spite of the exceedingly severe mental health symptoms and emotional distress, the participants demonstrated moderately high levels of resilience and self-esteem. As expected, self-esteem and resilience were significantly negatively correlated with indicators of emotional distress. Interestingly, self-esteem emerged as the variable most highly negatively correlated with mental health challenges, including depression, hopelessness, and suicide ideation. This observation is consistent with the findings of Kidd and Shahar (2008), who found that self-esteem was the strongest protective factor related to suicide ideation and loneliness amongst a similar group of street-involved youth in New York City. These authors recommend programming that explicitly focuses on raising self-esteem by concentrating on personal success and achievements, as well as evidence-based interventions such as dialectical behaviour therapy and motivational interviewing.

Although previous studies have documented the existence of mental health strengths, such as self-esteem and resilience, amongst street youth (Rew, 2003; Rew et al., 2001), few studies have identified the complexity of the relationship between psychological strengths and acute emotional distress in this vulnerable population. Although it is evident that mental health strengths and challenges are highly correlated, the majority of participants appeared to be experiencing acute distress. The focus group data offer further evidence that even when faced with mental health challenges, young people may be determined to strive for a better life.

Regardless of the extremely high levels of mental health symptoms reported by the participants, only 24% reported using mental health services. This finding is somewhat surprising given the availability of promising mental health programs in large cities. The qualitative data indicate that some youths had developed a great deal of scepticism about psychiatric treatment and prescription medications, which helps to explain why mental health services were used by only 24% of participants. From the perspective of the young people in this study, effective mental health services should not be stigmatizing and should be offered in a non-threatening manner at a pace suitable for this population. The importance of a trusting relationship with staff as a basis for effective intervention is articulated in the literature (Kidd, Miner, Walker & Davidson, 2007). The labelling of services as "mental health services" seemed to be problematic for the participants due primarily to stigma, a phenomenon also identified in the literature (Kidd et al.). The role of stigma in mental illness and homelessness is of the utmost importance, since it appears to engender low self-esteem, shame, expectations of rejection, and a sense of limited opportunity.

There is an urgent need for evidence-based interventions that address the mental health problems of homeless youth (Klein et al., 2000; Slesnick et al., 2007). There is evidence indicating that the longer young people spend on the street the more likely they are to engage in high-risk behaviours such as prostitution and attempted suicide (McCarthy & Hagan, 1992) and to become chronically homeless (Goering, Tolomiczenko, Sheldon, Boydell, & Wasylenki, 2002). Further, McManus and Thompson (2008) point out that symptoms related to the traumatic experiences of street-involved youth frequently preclude the ability to transition out of homelessness. The present findings offer some perspectives to consider in the implementation of interventions to meet the mental health needs of this vulnerable population. Understanding the propensity of young people to experience overwhelming despair and at the same time hope for a better future is a critical vantage point from which to build programs and interventions that are in keeping with the philosophical underpinnings of dialectical behaviour therapy, a therapy that addresses these seemingly contradictory motivations in life.

Slesnick et al. (2007) emphasize the importance of this multi-prong approach. They point out that effective interventions offer the possibility of disrupting a negative spiral while at the same time providing the support and skills needed to strengthen positive linkages. Indeed, numerous authors have encouraged researchers to develop and evaluate interventions that strengthen positive relationships and build resilience (Johnson, Whitbeck, & Hoyt, 2005; Karabanow, 2004; Kidd, 2003). The present findings also highlight the need for young people to acquire the skills to withstand emotional distress and at the same time work at developing strengths. This approach is consistent with the recommendations of McWhirter, Besett-Alesch, Horibata, and Gat (2002), who cite the importance of developing skills pertaining to emotional self-awareness and social coping while also being mindful of self-esteem issues.

Limitations

This study used a cross-sectional design and a relatively small convenience sample that was not necessarily representative of all street-involved youth in the city in which it was conducted. As reported by other studies, the recruitment of street-involved youth is challenging given the difficulty of reaching those who are most at risk. In addition, the quantitative and focus group data were taken from two independent samples. Although these samples were recruited from the same settings within a similar time frame, there is no guarantee that the data obtained were equivalent. These limitations could affect the generalizability of the findings.

In spite of its limitations, this unique mixed-methods study extends the literature by highlighting the propensity of young people to experience both exceedingly high levels of mental health challenges and a reasonably solid sense of self, along with hope for a better future. Addressing the mental health problems of street youth through multi-faceted mental health programs may well help these young people to transition to stable housing, achieve social re-integration, and, ultimately, achieve improved quality of life.

The findings of this study have laid the groundwork for a Canadian Institutes of Health Research partnership study (with the Canadian Commission on Mental Health). That project will assess the effectiveness of a specific intervention (dialectical behaviour therapy) in reducing distress and maladaptive coping mechanisms and in promoting positive relationships and overall functioning amongst street-involved youth participating in transitional housing programs in three Canadian cities (Halifax, Toronto, and Calgary).

References

Adlaf, E. M., & Zdanowicz, Y. M. (1999). A cluster-analytic study of substance problems and mental health among street youth. *American Journal of Drug and Alcohol Abuse, 25,* 639–660.

Beck, A., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting and Clinical Psychology, 47,* 861–865.

Black, C., & Ford-Gilboe, M. (2004). Adolescent mothers: Resilience, family health work and health-promoting practices. *Issues and Innovations in Nursing Practice, 48,* 351–360.

Boivin, J.-F., Roy, E., Haley, N., & Galbaud du Fort, G. (2005). The health of street youth. *Canadian Journal of Public Health, 96,* 432–437.

Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development.* Thousand Oaks, CA: Sage.

Brausch, A. M., & Muehlenkamp, J. J. (2007). Body image and suicide ideation in adolescents. *Body Image, 4,* 207–212.

Chubb, N. H., Fertman, C. I., & Ross, J. L. (1997). Adolescent self-esteem and locus of control: A longitudinal study of gender and age differences. *Adolescence, 32,* 113–129.

Creswell, J. W. (2003). *Research design: Qualitative, quantiative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Derogatis L. R. (1994). *SCL-90: Symptom Checklist-90-R.* Minneapolis: National Computer Systems.

Fietal, B., Margetson, N., Chamas, R., & Lipman, C. (1992). Psychosocial background and behavioural and emotional disorders of homeless and runaway youth. *Hospital and Community Psychiatry, 43,* 155–159.

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive national survey. *Child Maltreatment, 10*(1), 5–25.

Fisher, M., Florsheim, P., & Sheetz, J. (2005). That's not my problem: Convergence and divergence between self- and other-identified problems among homeless adolescents. *Child and Youth Care Forum, 34,* 393–403.

Goering, P., Tolomiczenko, G., Sheldon, T., Boydell, K., & Wasylenki, D. (2002). Characteristics of persons who are homeless for the first time. *Psychiatric Services, 53*(11), 1472–1474.

Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioural Assessment, 23*(4), 253–263.

Groth-Marnat, G. (2009). *Handbook of psychological assessment.* Hoboken, NJ: John Wiley.

Humphreys, J. (2000). Spirituality and distress in sheltered battered women. *Journal of Nursing Scholarship, 32,* 273–278.

Hunter, A. J., & Chandler, G. E. (1999). Adolescent resilience. *Journal of Nursing Scholarship, 31*(3), 243–247.

Hwang, S. W. (2001). Homelessness and health. *Canadian Medical Association Journal, 164*(2), 229–233.

Johnson, K. D., Whitbeck, L. B., & Hoyt, D. R. (2005). Predictors of social network composition among homeless and runaway adolescents. *Journal of Adolescence, 28*(2), 231–248.

Joiner, T. E., Pfaff, J. J., & Acres, J. G. (2002). A brief screening tool for suicidal symptoms in adolescents and young adults in general health settings: Reliability and validity data from the Australian National General Practice Youth Suicide Prevention Project. *Behaviour Research and Therapy, 40*(4), 471–481.

Karabanow, J. (2004). *Being young and homeless: Understanding how youth enter and exit street life.* New York: Peter Lang.

Kidd, S. (2003). Street youth: Coping and interventions. *Child and Adolescent Social Work Journal, 20*(4), 235–261.

Kidd, S. A., & Kral, M. J. (2002). Suicide and prostitution among street youth: A qualitative analysis. *Adolescence, 37*(146), 411–430.

Kidd, S., Miner, S., Walker, D., & Davidson, L. (2007). Stories of working with homeless youth: On being "mind-boggling." *Children and Youth Services Review, 29*(1), 16–34.

Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *American Journal of Orthopsychiatry, 78*(2), 163–172.

Kipke, M. D., Simon, T. R., Montgomery, S. B., Unger, J. B., & Iversen, E. F. (1997). Homeless youth and their exposure to and involvement in violence while living on the streets. *Journal of Adolescent Health, 20*(5), 360–367.

Klein, J., Woods, A., Wilson, K., Prospero, M., Greene, J., & Ringwalt, C. (2000). Homeless and runaway youths' access to health care. *Journal of Adolescent Health,* 27(5), 331–339.

Kurtz, P. D., Jarvis, S.V., & Kurtz, G. (1991). The problems of homeless youth: Empirical findings and human service issues. *Social Work, 36,* 309–314.

McCarthy, B., & Hagan, J. (1992). Surviving on the street: The experiences of homeless youth. *Journal of Adolescent Research,* 7(4), 412–430.

McCaskill, P. A., Toro, P. A., & Wolfe, S. M. (1998). Housed and matched housed adolescents: A comparative study of psychopathology. *Journal of Clinical Child Psychology, 27*(3), 306–319.

McManus, H. H., & Thompson, S. J. (2008). Trauma among unaccompanied homeless youth: The integration of street culture into a model on intervention. *Journal of Aggression, Maltreatment and Trauma, 16*(1), 92–109.

McWhirter, B. T., Besett-Alesch, T. M., Horibata, J., & Gat, I. (2002). Loneliness in high risk adolescents: The role of coping, self-esteem and empathy. *Journal of Youth Studies, 5*(1), 69–84.

Meyer, T. D., & Hautzinger, M. (2003). The structure of affective symptoms in a sample of young adults. *Comprehensive Psychiatry, 44,* 110–116.

Morrell-Bellai, T., Goering, P. N., & Boydell, K. M. (2000). Becoming and remaining homeless: A qualitative investigation. *Issues in Mental Health Nursing, 21,* 581–604.

North, C. S., Pollio, D. E., Smith, S., & Spitznagel, E. (1998). Correlates of early onset and chronicity of homelessness in a large urban homeless population. *Journal of Nervous and Mental Disease, 186*(7), 393–400.

Radloff, M. (1977). The CES-D: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 28,* 385–401.

Rew, L. (2003). A theory of taking care of oneself grounded in experiences of homeless youth. *Nursing Research, 52*(4), 234–241.

Rew, L., & Horner, S. D. (2003). Personal strengths of homeless adolescents living in a high-risk environment. *Advances in Nursing Science, 26,* 90–101.

Rew, L., Taylor-Seehafer, M., Thomas, N.Y., & Yockey, R. D. (2001). Correlates of resilience in homeless adolescents. *Journal of Nursing Scholarship, 33*(1), 33–40.

Rhode, P., Noell, J., Ochs, L., & Seeley, J. R. (2001). Depression, suicidal ideation and STD-related risk in homeless older adolescents. *Journal of Adolescence, 24,* 447–460.

Rosenberg, M. (1979). *Conceiving the self.* New York: Basic Books.

Roy, E., Haley, N., Leclerc, P., Sochanski, B., Boudreau, J. F., & Boivin, J. F. (2004). Mortality in a cohort of street youth in Montreal. *Journal of the American Medical Association, 292*(5), 569–574.

Sinclair, S. J., Blais, M. A., Gansler, D. A., Sandberg, E., Bistis, K., & LoCicero, A. (2010). Psychometric properties of the Rosenberg Self-Esteem Scale: Overall and across demographic groups living within the United States. *Evaluation and Health Professions, 33*(1), 56–80.

Sleegers, J., Spijker, J., Van Limbeek, J., & Van Engeland, H. (1998). Mental health problems among homeless adolescents. *Acta Psychiatrica Scandinavica, 97,* 253–259.

Slesnick, N., Prestopnik, J. L., Meyers, R. J., & Glassman, M. (2007). Treatment outcome for street-living, homeless youth. *Addictive Behaviors, 32*(6), 1237–1251.

Snow, M., Thurber, S., & Hodgson, J. M. (2002). An adolescent version of the Michigan Alcoholism Screening Test. *Adolescence, 37*(148), 835–840.

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1,* 165–178.

Whitbeck, L. B., Johnson, K. D., Hoyt, D. R., & Cauce, A. (2004). Mental disorder and comorbidity among runaway and homeless adolescents. *Journal of Adolescent Health, 35,* 132–140.

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Résumé

Les déterminants influant sur la santé mentale des enfants : l'intersectionnalité comme cadre pour le renouvellement des soins de santé primaires

Charmaine M. McPherson, Elizabeth A. McGibbon

La notion de renouvellement des soins de santé primaires (SSP) a été explicitement conçue pour traiter de la question des facteurs multidimensionnels ayant un impact sur la santé, notamment les déterminants sociaux. Ces déterminants sont d'importance capitale en matière d'élaboration de politiques intégrées, intersectorielles et intergouvernementales, comme c'est le cas pour les déterminants qui alimentent les modèles de soins de santé mentale partagés pour enfants. Toutefois, l'intégration de ces questions multidimensionnelles dans la conception de politiques comporte des défis théoriques complexes. La relation qui existe entre les déterminants sociaux de la santé et les éléments d'identité, tels la race, le sexe biologique, l'âge, la sexualité et l'appartenance à une classe sociale, lesquels s'inscrivent dans un contexte géographique donné, est un sujet rarement abordé et figure parmi ces questions. Cette étude met à contribution l'analyse intersectionnelle dans l'examen des liens complexes qui existent entre les facteurs influant sur la santé mentale des enfants et les défis inhérents au renouvellement des SSP dans la sphère des politiques. Selon les auteures, les décideurs doivent s'appuyer sur une solide compréhension des liens entre les déterminants sociaux de la santé, l'identité et la géographie, dans le cadre de leur démarche de renouvellement des SSP, entre autres dans leurs efforts pour s'attaquer aux inégalités en santé mentale infantile.

Mots clés : Déterminants de la santé, soins de santé primaires

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Addressing the Determinants of Child Mental Health: Intersectionality as a Guide to Primary Health Care Renewal

Charmaine M. McPherson, Elizabeth A. McGibbon

Primary health care (PHC) renewal was designed explicitly to attend to the multidimensional factors impacting on health, including the social determinants of health. These determinants are central considerations in the development of integrated, cross-sectoral, and multi-jurisdictional policies such as those that inform models of shared mental health care for children. However, there are complex theoretical challenges in translating these multidimensional issues into policy. One of these is the rarely discussed interrelationships among the social determinants of health and identities such as race, gender, age, sexuality, and social class within the added confluence of geographic contexts. An intersectionality lens is used to examine the complex interrelationships among the factors affecting child mental health and the associated policy challenges surrounding PHC renewal. The authors argue that an understanding of the intersections of social determinants of health, identity, and geography is pivotal in guiding policy-makers as they address child mental health inequities using a PHC renewal agenda.

Keywords: child health, determinants of health, health disparities, health policy, mental health/psychosocial, primary health care

A key aspect of primary health care (PHC) reform is the promotion and protection of the health of communities through public policy that tackles the systemic origins and outcomes of health inequity (World Health Organization [WHO], 2008b). Given the complexity of such policy challenges, especially with respect to vulnerable populations such as children, it is essential that decision-makers and practitioners be grounded in clear and appropriate frameworks to guide PHC renewal. There has been some discussion of PHC in Canadian nursing (DiCenso et al., 2007; Dracup, 2007) and in primary mental health and related fields (Hughes, 2006; Piat, Barker, & Goering, 2009). However, little attention has been paid to the complex issue of addressing child mental health inequities within PHC renewal. An intersectionality lens holds great promise for reducing mental health inequities because it explicitly attends to complex interactions among root causes, including the social determinants of health (SDH) and other inequities such as those related to racism and sexism.

Child mental health is an urgent matter in Canada. Significantly, child mental health is seen as a *new morbidiy* for Canadian children and youth, in addition to chronic childhood illnesses such as asthma, diabetes, and obesity (Canadian Paediatric Society [CPS], 2009). A policy report by the advisor to the federal Minister of Health on the health status of children and youth highlights mental health as one of three national health priorities for this population (Leitch, 2007). At any given time more than 1.2 million Canadian children and youth, or 15% of this population, are affected by mental illness (Leitch, 2007). Mental health problems among children and youth are expected to increase by 50% by the year 2020 (CPS, 2009). The mental health of our children is also a critical issue globally, with epidemiological data suggesting a 20% worldwide prevalence of child and adolescent mental disorders (WHO, 2003).

There continues to be a dearth of information articulating child mental health outcomes and SDH. Analysis and synthesis of mental health outcomes related to the intersections of SDH identities such as racism, sexism, and geography have barely begun. The complexity of this concern requires a complex approach — we will not achieve justice in child mental health if we simplify or segment the causes and outcomes of these intersections. PHC, with its inherent emphasis on interprofessional and cross-sectoral partnerships striving towards health equity within a social justice frame, is foundational to child mental health outcomes and SDH.

Although intersectionality applies to all dimensions of nursing, such as practice, education, management, and research, the purpose of this theoretical article is to advance nursing knowledge about intersectionality as it relates to PHC renewal in *policy-making* on child mental health. We explicitly link child mental health and the concept of shared mental health care within the context of PHC renewal. We advance an intersectionality lens to support mental health within PHC renewal, to explore the impact of intersections of SDH on children, and to examine PHC renewal policy. We then use the four WHO (2008b) areas of PHC reform to guide the application of intersectionality.

Linking Child Mental Health to PHC Renewal

Governments have a responsibility to effectively promote child health and well-being through policy and programming. The complex nature of many childhood mental health issues requires the involvement of multiple professionals, sectors, and partners, including families, communities, and public services. However, our current system is not designed to respond in an integrated, interprofessional, and cross-sectoral manner, as often dictated by child mental health needs (McPherson, 2008). Further, many inequities are driven by ineffective public policies, and the services that flow from these policies are essentially contributing to a worsening of mental health outcomes for children and their families (Bryant, 2009).

Health system strengthening through PHC renewal holds much promise (WHO, 2008b). Collaborative interprofessional and cross-sectoral partnerships, many of which involve the nursing profession, have been put forth as a key policy strategy in redesigning the health and public service systems to enhance health outcomes, especially for complex and vulnerable populations such as children (Romanow, 2002). Cross-sectoral teams are designed to mirror the undisputed links between SDH and child mental health outcomes.

The Context of PHC Renewal

Health systems have been undergoing necessary widespread reform globally, nationally, and provincially. Many stakeholders, including individuals, system leaders, and practitioners, recognize that PHC is the foundation of Canada's health-care system and that improving PHC is essential to widespread health system reform. There is robust theoretical and empirical evidence indicating an association between strong national PHC systems and improved health outcomes (Starfield, Shi, & Macinko, 2005; WHO & Public Health Agency of Canada, 2009).

Major policy initiatives have been undertaken globally to strengthen PHC since its introduction under the *Declaration of Alma-Ata* in 1978 (WHO, 1978). PHC represents the first point of contact that people usually have with the health-care system, including youth health centres, well-women's clinics, and community health centres. Collaborative PHC working arrangements are increasingly being recognized as a requirement for systemic change to address complex and contextually laden issues such as child mental health (McPherson, 2008).

The 2008 *World Health Report* outlines four key areas for PHC reform: public policy, universal coverage, service delivery, and leadership (WHO, 2008b). The report reiterates the 1978 focus on social justice and the right to better health for all by using evidence to address the politically, socially, and economically unacceptable health inequities faced by citizens globally. Such action requires a reorientation of the way in which public systems operate.

Shared Mental Health Care Within PHC Renewal

Many of the principles and values associated with PHC can be considered supports for the enhancement of policies for childhood primary mental health care, including interprofessional collaborative care delivered by the right provider at the right time in the right place. Primary mental health care, or *shared mental health care,* is a collaborative model that can help to shift the culture of general family practice from simple referral models to stronger models of interprofessional collaboration (Keleher, 2006), which is a cornerstone of PHC renewal.

Canada's Kirby Report on mental health (Kirby & Keon, 2006) identifies the need for departments and ministries of health, education, social services, and justice to work together at all levels to deliver integrated models of delivery and access to mental health services. Since at least 1997 there has been discussion regarding the shared mental health care model (Kates et al., 1997), including an explicit linking of PHC and the concept of shared care (Mazowita, 2004). Several Canadian shared mental health care models have been developed and tested (Hamilton Family Health Team, 2010; Shared Mental Health Care, 2010). There has also been recent activity by medical specialists in the United States regarding shared models focusing on children and adolescents (American Academy of Child and Adolescent Psychiatry, 2009). Some experts place the shared care model within PHC renewal, contending that mental health care is an ongoing PHC concern and that shared care and PHC renewal are inseparable. Meaningful participation by consumers and families in public decisions that affect their health is a fundamental principle of PHC (WHO, 2008b). However, one must become vigilant with regard to the evolving shared mental health care model to ensure that this PHC principle is respected; genuine and appropriate involvement of consumers and their families must be a priority. If the PHC renewal process is to be carried forward, it will have to widely adopt shared mental health care principles — just as the advocates of shared mental health care will have to adopt the principles of PHC.

The Canadian Collaborative Mental Health Initiative (CCMHI) (2010) uses *collaborative care* terminology for the shared care model. This initiative describes collaborative care as "an interprofessional process of communication and decision making that allows the knowledge and skills of different health care providers, along with the client/consumer, to influence the care provided to that consumer" (Oandasan, 2003, p. ii). The CCMHI is one of many initiatives supported by Health Canada's Primary Health Care Transition Fund, and it has contributed to a broad action plan supporting PHC renewal and innovation in Canada. The Canadian Nurses Association has been one of 12 national organizational partners in this initiative, thus ensuring an interprofessional presence for nursing. The CCMHI reflects commitments made by Canada's First Ministers in 2001 to make adjustments to PHC delivery to maximize access and effectiveness while strengthening the preventive and health promotion aspects of the health-care system.

Mental health is an integral element in PHC because patients regularly turn to PHC providers for support, treatment, and access to specialized resources. The CCMHI has strived to develop policies that promote and advance collaborative mental health by engaging consumers, families, communities, primary care practitioners, and mental health care providers. In its planning, the CCMHI has targeted eight distinct populations, including children and adolescents.

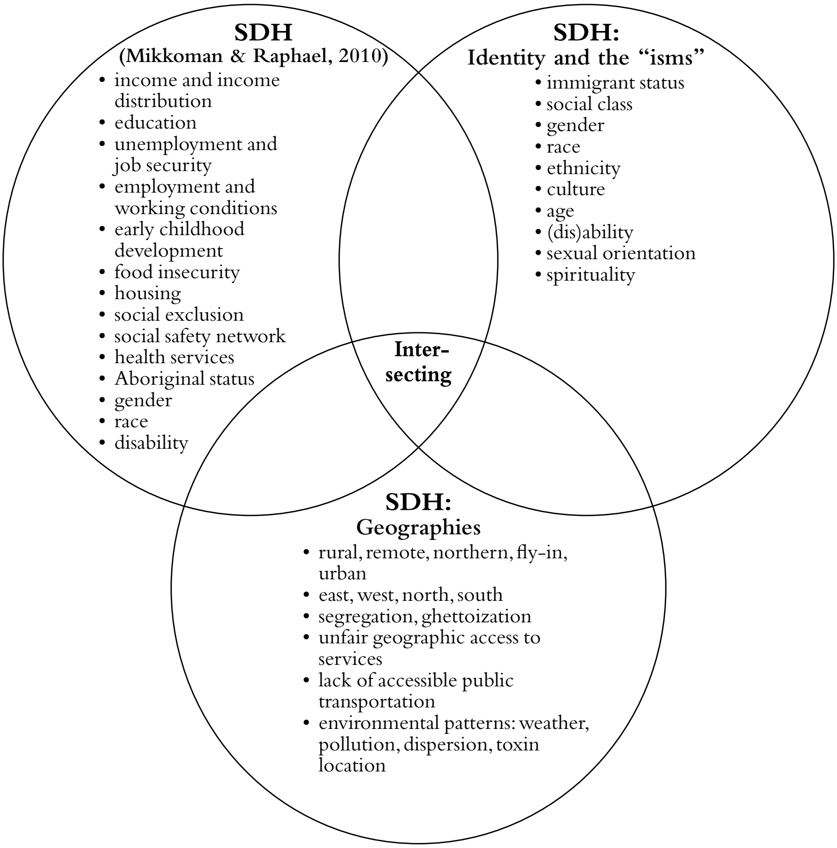
From a federal policy perspective, in 2007 the Canadian Advisor on Healthy Children and Youth, reporting to the Minister of Health, recommended five key actions regarding the role of the federal government (Leitch, 2007). Included among these was improvement of mental health services for children and youth. Leitch notes that Canada needs to build health human resources capacity in pediatric mental health. Specifically targeting implications for nursing and physician regulatory bodies, she links child mental health to PHC by recommending that capacity in PHC settings be augmented to effectively maximize the contribution of all health-care providers.

Using an Intersectionality Lens to Support Mental Health Within PHC Renewal

Health system strengthening through PHC renewal and shared mental health care offers a clear policy opportunity to address inequities in the social determinants of child mental health. The nature of these inequities is underscored by the inherent need for a cross-sectoral policy focus in PHC. The concept of intersectionality has much to offer in terms of support for system strengthening and decreasing the material deprivation that underpins and exacerbates the mental health struggles of children. Although the particulars of service development and evaluation require further scholarly examination within the nursing community, this discussion focuses on *policy practice.* We emphasize how an understanding of the intersections of SDH, identity, and geography can enhance PHC policy development to reduce inequities. This perspective, known as *intersectionality* (Hankivsky & Christoffersen, 2008; McGibbon, 2009), is entirely consistent with the cross-sectoral underpinnings of PHC renewal and is central to addressing inequities in child mental health outcomes.

This discussion is necessarily complex, because three crucial SDH areas must be integrated: (1) SDH as laid out by Mikkoman and Raphael (2010); (2) identity and its related forms of oppression, referred to herein as the "isms" (e.g., racism, classism, sexism, ageism), as an SDH; and (3) geography as an SDH. Figure 1 illustrates these three areas. It is important to note that *all three areas* are now considered SDH. The examples that follow demonstrate how intersectionality can be used to under-

Figure 1 ***SDH Intersectionality Lens for Addressing Health Inequities***



Source: Adapted from McGibbon (2009), p. 322.

stand the context of child mental health and the related complexity within the PHC policy context.

Intersectionality lenses have been used to describe the interwoven influences of identities such as gender, sexual orientation, race, ethnicity, (dis)ability, and age on experiences of injustice (James, 2003). For example, feminist intersectionality frameworks emphasize "an understanding of the many circumstances that combine with discriminatory social practices to produce and sustain inequity and exclusion . . . can impact the combination of a person's social or economic status, race, class, gender, and sexuality" (Canadian Research Institute for the Advancement of Women, 2006, p. 7). In this context, discrimination is action or inaction based on prejudice, such as provision of inadequate emergency care for Aboriginal families. Oppression is discrimination backed up by institutional power (health, education, or legal system), such as occurs when a hospital does not intervene to halt discriminatory practices (McGibbon & Etowa, 2009).

Intersectionality theory emphasizes the interaction of various forms of oppression related to the "isms" and the links among the oppression and systemic power (Collins, 2000). These forms of discrimination, and hence oppression, do not operate independently of each other. They interact in complex ways that intensify oppression. The following example may serve to illustrate. Stress within a family is often increased when a child experiences a serious mental health concern. If this is a low-income family, consider the potential increase in stress due to the burden of worry about the family's ability to provide the necessities of life (i.e., SDH as outlined by Mikkoman and Raphael [2010]). Now, consider the interaction of the stress caused by low income with that caused by one of the "isms," such as racism. Finally, if this family lives in a rural area, then it is not difficult to see how the three areas of SDH (i.e., Mikkoman and Raphael, "isms," and geography) indeed interact in a complex way to intensify the experience of oppression.

Intersections of SDH: Impact on Children

Although SDH have long been recognized as determinants of mental health, the interrelationships or *intersections* among SDH themselves (e.g., early childhood development, income, food security) are much less understood. Four longstanding factors continue to explain a large proportion of the differences in health among Canadians: gender, Aboriginal status, age, and socio-economic status (Canadian Institute for Health Information, 2009). Supporting this finding are the solid links between childhood health status (physical and mental) and SDH (Raphael, 2009b; WHO, 2008a). While there are many conceptualizations of SDH, a recent publication on the topic (Mikkoman & Raphael, 2010) outlines the following determinants: income and income distribution, education, unemployment and job security, employment and working conditions, early childhood development, food insecurity, housing, social exclusion, social safety network, health services, Aboriginal status, gender, race, and disability. Notably, health disparities among Canadian children remain linked primarily to differences in family socio-economic status (Lemstra & Neudorf, 2008), and poverty remains the strongest determinant of health (Raphael, 2009a).

Despite the well-documented links between poverty and child health, and despite a unanimous 1989 House of Commons resolution to eliminate child poverty in Canada by the year 2000, the situation has grown progressively worse. More than one million Canadian children, or one child in ten, are still living in poverty — an actual increase of over 20% since 1989 (Campaign 2000, 2009). Furthermore, poverty intersects with racism such that children from racialized groups experience higher than average levels of poverty. Social exclusion and the racialization of poverty mean that 51% of Aboriginal children and 42.7% of visible minority children in Canada are likely to be poor, compared to the already unacceptable national average of 23.4% of children living in poverty (Canadian Council on Social Development, 2009). Our great national shame is that one in every four children in First Nations communities is growing up in poverty (Campaign 2000, 2009).

In a recent series of papers, Raphael (2010a, 2010b) focuses on the health of Canada's children. He concludes that Canada's performance ranks poorly among developed countries on several key indicators of child health. And he notes that there is little evidence of recent improvements. Raphael (2010a) ties low health status scores to SDH, such as income and family socio-economic status, seen broadly as the living conditions to which children are exposed. He analyzes the mechanisms and pathways by which children's health, including their mental health, is either supported or threatened. Consistent with our arguments here, Raphael concludes that life-course explanations focus on how Canadian children experience systematically different life circumstances that translate into health differences. Further, the extent of inequality in living conditions and the health-related experiences of children and their families are heavily influenced by public policy.

An environment of poverty is characterized by exposure to cumulative adverse physical and social stressors (Evans & English, 2002). Of particular concern is the robust relationship between poverty or low socioeconomic status and childhood stress (Evans & Kim, 2007). This stress has been documented as producing a wide range of physiological and socioemotional difficulties in children, including chronic disregulation of the cardiovascular system, disruption of the body's stress-regulation system (Evans & Kim, 2007), depression, and low achievement (Alaimo, Olsen, & Frongillo, 2002). The scope and depth of the impact of childhood poverty on long-term mental health are further evidenced by the inverse relationship between poverty and working memory in young adults (Evans & Schamberg, 2009). The term working memory refers to a brain system that provides temporary storage and manipulation of the information necessary for such complex cognitive tasks as language comprehension, learning, and reasoning (Baddeley, 2003).

The intersectional impacts of deprivation related to SDH remain a central and under-recognized factor in the mental health struggles of children. For example, food insecurity related to unemployment plays a central role in shaping childhood mental health outcomes.Young people aged 15 and 16 from homes where there is not always enough to eat are five times more likely to attempt suicide than well-fed adolescents; they are also four times more likely to suffer from chronic low-grade depression, which is a high-risk factor for major depression, and almost twice as likely to be suspended from school; in addition, they have more problems getting along with their peers (Alaimo et al., 2002). Children aged 6 to 11 who live in families without enough food are twice as likely to see a psychologist and 1.4 times as likely to repeat a grade and to have significantly lower mathematics scores (Alaimo et al., 2002).

The geographic and spatial contexts of oppression introduce yet another layer of complexity, including lack of access to services in rural, remote, and northern areas (Ministerial Advisory Committee on Rural Health [MACRH], 2002). Infant mortality rates in rural Canada are 30% higher than the national average. Further, over 50% of the country's indigenous peoples live in rural, remote, and northern regions.The health status of rural indigenous families follows the same pattern of decreased life expectancy and increased morbidity as Canada's indigenous families as a whole (MACRH, 2002).What the geographic contexts of oppression, SDH, and the "isms" have created, ultimately, are intersections of intersections. Collectively, the three areas — SDH, identity and the "isms," and geography — form a powerful synergy of oppression that is difficult to disentangle in terms of its policy base and its impact on everyday life. Collectively, the three intersecting areas have built a complex and deeply embedded system of disadvantage for many Canadian children that public policies are largely ill-equipped to handle.

Using an Intersectionality Lens to Examine PHC Renewal Policy

Intersectionality theory and PHC renewal are related in several ways. Both are grounded in an inherent focus on the intersections of areas of practical and theoretical knowledge. In the case of PHC renewal, the emphasis is on shared mental health care, the need for collaborative interprofessional and cross-sectoral partnerships, and universal access to services to reduce health inequities. Indeed the concepts of interprofessional partnerships and cross-sectoral partnerships were introduced to form a bridge between the traditional health sector and sectors such as social services, education, and justice (McPherson, 2008). For example, ameliorating the stress experienced by children who live in poverty requires a cohesive and combined effort by senior policy-makers not only in the mental health sector but also in the social services, education, and justice sectors. Here, the use of an intersectionality lens makes intuitive sense, since child mental health is deeply embedded in SDH. Policies and programs need to be put in place to address the root causes of SDH-related mental health symptoms.

Appendix 1 applies an intersectionality lens to the four key areas of PHC reform outlined in the 2008 *World Health Report* (WHO, 2008b). We place the emphasis on the first area of reform — public policy — since it is pivotal to reforms undertaken in the other three areas.

Conclusions

Certain key public policies and practices have a major impact on the mental health of Canada's children. Public and system leaders must be held accountable for their priority-setting and strategic initiatives within PHC renewal, and within primary mental health services for children in particular. An intersectionality lens can be used to assess leadership accountability and as a "checkpoint" guide for public leaders in all phases of the policy cycle, including issue assessment and policy design, implementation, and evaluation. The nursing profession should seize the opportunity offered by health system strengthening through PHC renewal to advance care reforms aimed at diminishing exclusion and social disparities (International Congress of Nurses, 2008). Nursing can do so through children's mental health services and system redesign that takes into account the lack of access based on the "isms." It is imperative that future research explore how these barriers might be analyzed and addressed in the context of inequities related to SDH, identity as an SDH, and geography as an SDH. Further work is needed to move this intersectionality thinking from the policy imperative through to service design, delivery, and evaluation. The global focus on health system strengthening through PHC renewal affords the perfect opportunity to advance this thinking in many domains of practice.

References

Alaimo, K., Olsen, C. N., & Frongillo, E. A. (2002). Family food insufficiency is positively associated with dysthymia and suicide symptoms in adolescents. *American Society for Nutritional Sciences Journal of Nutrition, 132,* 719–725.

American Academy of Child and Adolescent Psychiatry. (2009). Improving mental health services in primary care: Reducing administrative and financial barriers to access and collaboration. Task Force on Mental Health, Committee on Health Care Access and Economics. *Pediatrics, 123*(4), 1248–1251.

Baddeley, A. (2003). Working memory and language: An overview. *Journal of Communication Disorders, 36*(3), 189–208.

Bryant, T. (2009). *An introduction to health policy.* Toronto: Canadian Scholars' Press.

Campaign 2000. (2009). *2009 report card on child and family poverty in Canada: 1989–2009.* Retrieved January 28, 2010, from http://www.nwac-hq.org/en/documents/Campaign20002009NationalReportCard.pdf.

Canadian Collaborative Mental Health Initiative. (2010). *Overview.* Retrieved January 8, 2010, from http://www.ccmhi.ca/en/who/index.html.

Canadian Council on Social Development. (2009). *Protecting Canadians at greatest risk: Economic recession and poverty reduction. Submission to federal pre-budget consultation.* Retrieved January 28, 2010, from http://www.ccsd.ca/ccsd-submission-pre-budget-consul.pdf.

Canadian Institute for Health Information. (2009). *Health care in Canada 2009: A decade in review.* Ottawa: Author.

Canadian Paediatric Society. (2009). *Are we doing enough? A status report on Canadian public policy and child and youth health.* Ottawa: Author.

Canadian Research Institute for the Advancement of Women. (2006). *Intersectional feminist frameworks: A primer.* Ottawa: Author.

Collins, P. H. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment.* Boston: Unwin Hyman.

DiCenso, A., Auffrey, L., Bryant-Lukosius, D., Donald, F., Martin-Misener, R., Matthews, S., et al. (2007). Primary health care nurse practitioners in Canada. *Contemporary Nurse, 26*(1), 104–115.

Dracup, K. (2007). Increasing research in primary care: Critical for consolidating nurses' position in the primary health care team. *Contemporary Nurse, 26*(1), 3–4.

Evans, G., & English, K. (2002). The environment of poverty: Mulitple stressor exposure, psycho-physiological stress, and socioeconomic adjustment. *Child Development, 73*(4), 1238–1248.

Evans, G., & Kim, P. (2007). Childhood poverty and health: Cumulative risk exposure and stress deregulation. *Psychological Science, 18*(11), 953–957.

Evans, G., & Schamberg, M. (2009). *Childhood poverty, chronic stress, and adult working memory.* Proceedings of the National Association of the Academy of Sciences. Retrieved January 20, 2010, from http://www.pnas.org/content/106/16/6545.full.pdf+html.

Hamilton Family Health Team. (2010). *Hamilton mental health program: Child and youth mental health pilot.* Hamilton, ON: Author. Retrieved January 28, 2010, from http://www.hamiltonfht.ca/detail.aspx?menu=44&app=194&cat1=561&tp=2&lk=no.

Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: A Canadian perspective. *Critical Public Health, 18*(3), 271–283.

Hughes, J. (2006). Violence and health: The challenges of how we talk about, conceptualize, and address violence. *Canadian Journal of Nursing Research, 38*(4), 27–30.

International Congress of Nurses. (2008). *Delivering quality, serving communities: Nurses leading primary health care.* Geneva: Author.

James, C. (2003). *Seeing ourselves: Exploring race, ethnicity, and culture.* Toronto: Thompson Educational.

Kates, N., Craven, M., Bishop, J., Clinton, T., Kraftcheck, D., LeClair, K., et al. (1997). Shared mental health care in Canada. *Canadian Journal of Psychiatry,* 42(8 suppl), 809–812.

Keleher, H. (2006). Community-based shared mental health care: A model of collaboration? *Australian Journal of Primary Health, 12*(2), 90–96.

Kirby, M., & Keon, W. (2006). *Out of the shadows at last: Transforming mental health, mental illness and addiction services in Canada.* Ottawa: Government of Canada. Retrieved January 28, 2010, from http://www.parl.gc.ca/39/1/parlbus/commbus/senate/Com-e/SOCI-E/rep-e/rep02may06-e.htm.

Leitch, K. K. (2007). *Reaching for the top: A report by the Advisor on Healthy Children and Youth.* Ottawa: Health Canada. Retrieved January 28, 2010, from http://www.hc-sc.gc.ca/hl-vs/pubs/child-enfant/advisor-conseillere/index-eng.php.

Lemstra, M., & Neudorf, C. (2008). *Health disparity in Saskatoon: Analysis to intervention.* Saskatoon: Saskatoon Health Region. Retrieved January 28, 2010, from http://www.saskatoonhealthregion.ca/your_health/documents/PHO/HealthDisparityExecSummary.pdf.

Mazowita, G. (2004). Shared care: The core concept of primary care renewal. *Canadian Psychiatric Association Bulletin, 36*(4), 16–18.

McGibbon, E. (2009). Health and health care: A human rights perspective. In D. Raphael (Ed.), *The social determinants of health* (2nd ed.) (pp. 318–335). Toronto: Canadian Scholars' Press.

McGibbon, E., & Etowa, J. (2009). *Anti-racist health care practice.* Toronto: Canadian Scholars' Press.

McPherson, C. (2008). *Interorganizational child health networks: A case study of network development, evolution and sustainability.* Unpublished doctoral dissertation, McMaster University.

Mikkoman, J., & Raphael, D. (2010). *Social determinants of health: The Canadian facts.* Toronto: School of Health Policy and Management, York University. Retrieved August 25, 2010, from http://www.thecanadianfacts.org/.

Ministerial Advisory Committee on Rural Health. (2002). *Rural health in rural hands: Strategic directions for rural, remote, northern and Aboriginal communities.* Ottawa: Health Canada.

Oandasan, I. (2003). *Interdisciplinary education for collaborative patient-centred practice: Research and findings report.* Ottawa: Health Canada.

Piat, M., Barker, J., & Goering, P. (2009). A major Canadian initiative to address mental health homelessness. *Canadian Journal of Nursing Research, 41*(2), 79–82.

Raphael, D. (2009a). Poverty, human development, and health in Canada: Research, practice, and advocacy dilemmas. *Canadian Journal of Nursing Research, 41*(2), 7–18.

Raphael, D. (2009b). *Social determinants of health* (2nd ed.). Toronto: Canadian Scholars' Press.

Raphael, D. (2010a). The health of Canada's children. Part I: Canadian children's health in comparative perspective. *Paediatric and Child Health, 15*(1), 23–29.

Raphael, D. (2010b). The health of Canada's children. Part II: Health mechanisms and pathways. *Paediatric and Child Health, 15*(2), 71–76.

Romanow, R. (2002). *Building on values: The future of health care in Canada.* Ottawa: Government of Canada.

Shared Mental Health Care. (2010). *Southern Alberta Shared Mental Health Care Model.* Retrieved January 28, 2010, from http://www.sharedmentalhealthcare.ab.ca/.

Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary health care to health systems and health. *Milbank Quarterly, 83*(3), 457–502.

World Bank. (2004). *World development report 2004: Making services work for poor people.* Washington: Author.

World Health Organization. (1978). *Declaration of Alma-Ata: International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September, 1978.* Retrieved February 5, 2009, from http://www.who.int/publications/almaata_declaration_en.pdf.

World Health Organization. (2003). *Caring for children and adolescents with mental disorders: Setting WHO directions*. Geneva: Author.

World Health Organization. (2008a). *Progress report 2008: Child and adolescent health and development*. Geneva: Author.

World Health Organization. (2008b). *The world health report 2008: Primary health care – Now more than ever.* Geneva: Author.

World Health Organization & Public Health Agency of Canada. (2008). *Health equity through intersectoral action: An analysis of 18 country case studies.* A report from the WHO Commission on the Social Determinants of Health. Retrieved February 28, 2009, from http://www.who.int/social_determinants/EN_intersectoral_action_final_report.pdf.

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Appendix 1 *Application of Intersectionality Lens to the Four Areas of PHC Reform (WHO, 2008)*

1. **Public policy reforms to promote and protect the health of communities**
   - Strengthening of the mental health care system through PHC would benefit from the use of an intersectionality lens as a "checkpoint" for issue assessment and for policy design, implementation, and evaluation.
   - Use of an intersectionality lens supports the integration of public health actions with PHC and the pursuit of healthy public policies across sectors. This frame provides a lens through which to examine policies, with the goal of healthier communities.
   - People expect their governments to have public policies in place to address health challenges such as discrimination against persons with

mental illness. An intersectionality lens for policy design and reform would further support PHC principles.

2. Universal coverage reforms to improve health equity

- Strengthening of the mental health care system in order to diminish exclusion and social disparities must include an accounting of lack of access based on the "isms" (e.g., racism, sexism, ageism, homophobia).
- These barriers must be analyzed and addressed in the context of inequities related to SDH and geography as an SDH. This will serve to address the spatial and geographic barriers (e.g., lack of access to pediatric specialist services in rural and remote areas) to the achievement of mental health equity.
- In global terms, public spending on health care benefits the rich more than the poor (World Bank, 2004). Use of an intersectionality lens supports an inversion of care, whereby those with the least means and the poorest health eventually become the greater consumers.

3. Service delivery reforms to make health systems patient-centred

- Strengthening of mental health care systems requires a reorientation, to transform conventional care into accessible patient-centred PHC. An intersectionality lens supports policy decisions and services that are relevant for disenfranchised communities and addresses inequities arising from intersections of SDH, identity, and geography.
- An intersectionality lens would force a reorganization of health-policy decision-making and services around people's needs and expectations. This would optimize the effectiveness of all services at all levels and make them more socially relevant and responsive.

4. Leadership reforms to make health authorities more reliable

- Policy-makers and leaders at the local, national, and global level must be held accountable. Leaders can use an intersectionality lens to work with system-based decision-makers and practitioners to systematically assess progress towards PHC renewal.
- Leaders in all public sectors need to work collectively to mitigate any adverse health effects and make the most of any health benefits arising from other sectors. An intersectionality lens would demonstrate to multiple sectors the cross-sectoral complexity and implications arising from the intersections of SDH, identity, and geography within their own and other sectors.
- The complexity of health system strengthening through PHC requires inclusive and participatory leadership. Community participation must address barriers to participation in society, including those arising from the intersection of SDH, "isms," and geography. Inclusive and participatory leadership can foster the involvement of consumers and families in shared mental health care.

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Résumé

La dépression chez les infirmières et les infirmiers

Marilyn C. Ohler, Michael S. Kerr, Dorothy A. Forbes

La guérison des patients relève entre autres de la qualité des services dispensés par le personnel infirmier, et le bien-être du personnel dépend à son tour de la qualité des milieux de travail et de pratique. L'Enquête nationale sur le travail et la santé du personnel infirmier (ENTSPI) s'est penchée sur un large éventail de tâches et de troubles de santé chez les infirmières et les infirmiers. Cette démarche a révélé un constat troublant : le personnel infirmier affiche un taux de dépression supérieur (1 sur 10) à celui relevé chez ses homologues (indiqué dans d'autres études nationales). Cette analyse secondaire des données s'est penchée sur les résultats liés à la dépression et a été effectuée auprès d'un sous-échantillon d'infirmières et d'infirmiers qui ont participé à l'ENTSPI. L'étude a notamment examiné les liens entre la dépression et des variables afférentes au travail, comme le stress causé par le travail, la surcharge des rôles, le respect, le soutien social et le soutien fourni par l'employeur, ainsi que la perception du personnel infirmier quant à la qualité des soins qu'il dispense. Une régression logistique multivariée a indiqué la présence d'un risque de dépression accru chez les infirmières et les infirmiers qui vivent du stress lié au travail et une surcharge de rôles, et qui ne bénéficient pas d'un respect.

Mot clé : stress

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Depression in Nurses

Marilyn C. Ohler, Michael S. Kerr, Dorothy A. Forbes

Patient outcomes are reliant on nursing calibre, which in turn is dependent on the health of work environments and practice settings. The National Survey of the Work and Health of Nurses (NSWHN) examined a broad spectrum of nurses' work and health, with one finding of particular concern: Nurses have a higher rate of depression (1 in 10) than their counterparts (as found in other national surveys). This secondary analysis of the data focused on the outcome of depression in a subsample of the nurses surveyed by the NSWHN and examined associations between depression and work-related variables such as job strain, role overload, respect, social and employer supports, and nurses' perception of the quality of the care they provided. A multivariate logistic regression found an increased risk of depression in nurses experiencing job strain, role overload, and a lack of respect.

Keywords: mental health/pyschosocial, nurse relationships/professional issues, stress and coping, work satisfaction

Introduction

Nursing is emotionally, mentally, and physically demanding work that is both rewarding and challenging in view of the profound changes that have occurred in health-care provision over the past several decades. Organizational downsizing, staffing cutbacks, work redesign, and advances in medical treatment have left the community care and hospital sectors dealing with larger needs populations at a time when fewer nurses are available. Furthermore, nursing is not attracting enough new recruits to replace aging nurses set to retire in the next few years (Canadian Institute for Health Information, 2008). All levels of government, health-care leaders, and health-care educators are concerned about the deepening shortage of health human resources as the need for access to safe, quality health care is increasing due to our aging population. Maintaining the health and well-being of the current nursing workforce is becoming paramount — a daunting prospect considering that the majority of Canadian nurses are in their mid-forties or older, having worked through at least two decades of upheaval in their workplaces.

The link between working conditions and nurse and patient outcomes is evident in the findings of a large body of research on North American magnet hospitals (Armstrong & Laschinger, 2006; Tourangeau et al., 2007; Upenieks, 2002). Current workloads and staffing pressures can lead to high levels of stress and burnout, affecting absenteeism and injury rates and resulting in chronic physical and mental conditions (Shamian, Kerr, Laschinger, & Thomson, 2002). Nurses' health is considered crucial, and workplace conditions that affect it are being closely monitored. The National Survey of the Work and Health of Nurses (NSWHN) was completed by close to 20,000 nurses across Canada in 2005 (Statistics Canada, 2009). One of the most disconcerting early outcomes, for health-care leaders, researchers, educators, and health-care consumers alike, is the high prevalence of depression among nurses (1 in 10) compared to members of the general public (Shields & Wilkins, 2006); by comparison, only 5.1% of nurses' female counterparts working outside of health care are depressed (Gilmour & Patten, 2007).

Why the high prevalence of depression in nurses? Is there a relationship between nurses' depression and their work? Policy-makers need to focus on improving the mental, physical, and emotional health of nurses, since the current nursing shortage is expected to intensify. The benefits of improving the health of nurses could include improved organizational health, leading to enhanced recruitment and retention of these valued professionals on whom patient outcomes depend. This study was conducted with the aim of adding to our knowledge about nurses' depression and its possible connections to their workplaces.

Theoretical Framework

Since early in the last century, when Hans Selye formulated a definition of stress (strain), researchers have been studying the connections between work and health. According to the demand/control model of work stress (Karasek & Theorell, 1990), if the demands on nurses exceed their control in the workplace, their health may suffer. High levels of demand and low levels of control result in job strain; jobs with a high level of control are considered healthier, especially in low-strain work environments. Johnson and Hall (1988) review the evidence on social support — its moderating or buffering effects on perceived stress/strain known to influence mental and physical health. They propose that Karasek and Theorell's model be modified to include work-related social support and be redefined as the demand/control/support model.

A second theoretical model of interest is the effort/reward model, in which high cost/low gain conditions "are likely to elicit recurrent feelings of threat, anger, and depression or demoralization" (Siegrist, 1996, p. 30), which evoke sustained autonomic arousal and can affect cardiovascular health. Assuming respect to be a key element of the rewards construct, Laschinger (2004) found that respect was negatively related to mental health outcomes such as emotional exhaustion, depressive state of mind, and intention to leave; in addition, respect was significantly related to perception of nursing-care quality and adequate staffing and thus acted as a mediator between working conditions and outcomes. DeCicco, Laschinger, and Kerr (2006) also found respect to be a mediator between working conditions and organizational and nurse outcomes. Thus, working conditions that foster disrespect may be harmful to nurses' mental health.

Literature Review

Intuitively, one would think that organizational efforts to reduce the stress or workload of nurses would lead to retention, increased sense of security, and reduced strain. Supportive management is linked to an increased ability to cope with role overload (Higgins, Duxbury, & Lyons, 2007). High-quality care may provide nurses with the sense of accomplishment that is needed for their emotional and mental well-being. Zellars, Perrewe, Hochwarter, and Anderson (2006) found that a high degree of positive affect and high levels of conscientiousness are associated with low levels of all strain variables. For a productive workforce, policy-makers must recognize the relationship between work stress and mental health, as well as the importance of primary prevention and adequate treatment (Blackmore et al., 2007).

In Canada, stress is a major contributor to mental health problems (Public Health Agency of Canada, 2006). Wang (2005) found that a high level of work stress is associated with high risk for a major depressive episode (MDE). Mental disorders such as depression, which are classified using the International Classification of Diseases, are among the leading causes of disability worldwide and have a high cost to society because of short- and long-term work impairment, absenteeism, and chronic illness (Gilmour & Patten, 2007; Stansfeld et al., 1995; Stephens & Joubert, 2001). Adler et al. (2006) looked at the job performance of employees with depression, employees with other chronic illnesses, and members of a control group with no physical or mental illness. They found that multiple dimensions of job performance were more impaired when employees had depression. Lerner and Henke (2008), in their review of the research on depression and work outcomes, found more unemployment, absenteeism, and work-performance deficits among those with depression than those without depression, at a multibillion-dollar annual productivity cost in the United States. Worldwide, depression ranks third, ahead of ischemic heart disease, as a contributor to global disease burden from non-communicable sources; in middle- to high-income countries such as Canada, it ranks first (World Health Organization, 2008).

An examination of the literature reveals a gap in evidence on factors contributing to depression in nurses, although there is a large research literature on burnout in nurses. Cox, Kuk, and Leiter (1993) contend that burnout does not carry the same stigma as a diagnosis of mental illness, that burnout represents the interaction of occupational stressors, in addition to the characteristics of the burned-out worker, while a worker with a diagnosis of mental illness becomes the focus and may be blamed for the condition. The stigma of mental illness may be part of a larger, systemic, response and could explain why burnout is a focus in nursing research while depression is not. It is important that nurses who are depressed receive appropriate treatment. Burnout, however, is not listed as one of the recognized diagnoses in the latest edition of the *Diagnostic and Statistical Manual* (DSM-IV) (American Psychiatric Association, 1994). One wonders if terminology such as burnout clouds the issue for many nurses. For Hallsten (1993), burning out is one route to depression, while Burisch (1993) has compiled 130 symptoms that various writers attribute to burnout and cautions "none of the symptoms was unique to burnout i.e. *not* to be found in other nosological entities such as depression" (p. 77). Therefore, access to a large Statistics Canada survey that used a valid and reliable method of assessing MDE (a subset of the Composite International Diagnostic Interview [CIDI]), as well as valid tools for work stress, presented an ideal opportunity to examine associations between depression in nurses and work-related variables.

Hypothesis

Depression in nurses is positively associated with role overload and job stress and negatively associated with nurses' perception of the quality of care provided and the respect and support of employers and co-workers.

Major Study Variables and Concepts

Depression

Depressive symptoms include depressed mood, loss of interest, significant weight gain or loss, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or hopelessness, diminished ability to think or concentrate, and recurrent thoughts of death or suicide ideation or attempt (Wang & Patten, 2001). In the NSWHN, an MDE was established using the methodology of Kessler et al. (1994), with the interviews using a subset of questions from the CIDI. A nurse with five or more of the nine symptoms listed above would have met the requirements for a 90% probability of an MDE diagnosis had she or he completed the CIDI long form (Statistics Canada, 2009).

Job Strain

Work stress was assessed using a modified version of Karasek et al.'s (1988) Job Content Questionnaire, the original having 12 questions relating to job strain, supervisor and co-worker respect, job insecurity, and physical demands, with internal consistency estimates of 0.7 for all subscales. The modified version has been used in other large, complex surveys, such as the Canadian National Population Health Survey (NPHS) 1994–95, as noted by Wang (2005). It was also used in the Canadian Community Health Survey-Mental Health and Well-Being survey (CCHS-1.2; Wang 2006). Shields and Wilkins (2006) acknowledge that the estimates of Cronbach's alpha for job stress scales used in the NSWHN are lower (0.23 to 0.54) and suggest that this is related to the limited number of items used.

Role Overload

Role overload is an imbalance between the resources available to the employee to do the work and the demands on the employee. While role overload can also be taken to mean the multiple roles that persons play in their lives, in the NSWHN survey the questions related directly to the nurses' main job. The role overload score, a derived variable, was assessed in the NSWHN using five statements based on a subscale of the Occupational Stress Inventory, with a reported alpha coefficient of 0.8, as described in Decker and Borgen (1993).

Respect

Three statements based on Siegrist's (1996) effort-reward imbalance scale were used to score nurses' responses concerning their perceptions about respect from their superiors and colleagues and the level of respect received in general considering their efforts and achievements. A derived variable with a possible range of 0 to 9 (higher score indicating a higher level of respect) was computed from these statements (Statistics Canada, 2009).

Employer Support

For the present analysis, a mean employer support score was calculated by first summing the scores for the questions relating to whether the employer offered support such as child care, excercise facilities, adequate nutrition, and Employee Assistance Programs (EAP) and whether the employer offered scheduling flexibility with regard to days or shifts worked.

Perception of the Quality of Care

Of the NSWHN questions that assessed nurses' perception of quality of care in their workplace, two were chosen that might influence or mediate nurses' mental and emotional well-being, namely perception of staffing on their last shift worked and perception of the quality of the care they provided on that shift. As indicated in the literature review, there is a relationship between a sense of accomplishment in one's work and one's well-being.

Methods

This secondary data analysis was a non-experimental descriptive correlational study. The database of interest, the NSWHN (2005), a large cross-sectional survey, was available through the Research Data Centre at the University of Western Ontario. For the present analysis, only the data for registered nurses (RNs) and registered psychiatric nurses (RPNs) employed in direct care in Canada were used, to ensure a more homogeneous sample. The required sample size of 591 was calculated as suggested by Tosteson, Buzas, Demidenko, and Karangas (2003) for logistic regression. The present study had excellent statistical power, as the subsample consisted of more than nine thousand RNs and RPNs.

In the present study, all preliminary analyses were conducted using SPSS© version 17.01, with logistic regression used to analyze associations between depression and work-related factors. STATA/SE© version 10.0 was used to apply a bootstrap weight procedure in the final multivariate logistic regression analysis, as suggested for use in large, complex national surveys (Chowhan & Buckley, 2005; Piérard, Buckley, & Chowhan, 2004; Rao, 2006). Statistics Canada provides survey weights developed for the NSWHN. The bootstrap procedure accounts for design effects, which could underestimate the true variance required to calculate accurate odds ratios and 95% confidence intervals.

Descriptive statistics for demographic variables (age, gender, marital status, place of employment, and full-time or part-time status) were generated from the subsample. Chi-square cross-tabulations and *t* tests were done to assess statistically significant relationships prior to entering the independent variables in a multivariate logistic regression model. The independent variables for the regression were nurses' work-related stress, role overload, respect and support, and perception of the quality of care and staffing in their workplace. Pearson correlations between the independent variables were also assessed. Lastly, variables representing chronic disease status and smoking and drinking history were recoded as binary control variables for analysis in the regression model, given their known association with depression (Glassman, Helzer, & Covey, 1990; Kessler et al., 2003; Rehm et al., 2009).

Sample

The subsample of nurses from the NSWHN used for this study (Table 1) comprised RNs and RPNs working in direct care in Canada (n = 9,322). The majority of these nurses worked in hospitals (67.1%), followed by community care (13.2%) and long-term care (10.2%), full-time (59.3%) or part-time (40.7%). Most of the nurses were diploma-prepared as opposed to degree-prepared (71.3 vs. 28.7%).

Table 1 *Sample Demographic Variables*

Variable	Frequency	Percentage	Cumulative Percentage
Age			
< 35	1,981	21.3	21.3
35–44	2,674	28.7	49.9
45–54	3,108	33.3	83.3
≥ 55	1,559	16.7	100.0
Sex			
Male	510	5.5	5.5
Female	8,812	94.5	100.0
Marital Status			
Married/ living common law	6,991	75.0	75.0
Single	1,228	13.2	88.4
Widowed	143	1.5	89.9
Separated/divorced	940	10.1	98.0
Case Definition Depression			
No	8,383	89.9	91.0
Yes	832	8.9	98.9
Diagnosis of Depression			
Yes	881	9.4	9.5
No	8,430	90.4	99.9
Antidepressant			
Yes	836	9.0	9.0
No	8,466	90.8	99.8
Chronic Conditions			
≥ One	6,735	72.2	72.4
None	2,567	27.5	99.8

Note: Total percentage may not be 100 if *missing* or *not stated* is removed from the total.

Table 2 *Multivariate Logistic Regression With Bootstrapped Replication*

Depressed Case	**Odds Ratio**	**Standard Error**	***T***	***P > t***	**95% Confidence Interval**	
Independent Variables						
Role overload*	1.058	0.017	3.49	0.001	1.025	1.091
Respect*	0.889	0.035	-3.02	0.003	0.823	0.960
Social support	1.066	0.036	1.87	0.062	0.997	1.139
Job strain*	1.792	0.397	2.63	0.009	1.159	2.769
Perception of staffing	1.106	0.145	0.77	0.441	0.855	1.431
Perception of care given	1.097	0.287	0.35	0.723	0.656	1.835
Employer support	1.120	0.336	0.38	0.705	0.622	2.018
Control Variables						
Age*	0.984	0.006	-2.65	0.008	0.972	0.996
Married*	1.409	0.190	2.54	0.011	1.081	1.836
Depression question*	4.796	0.957	7.86	0.000	3.241	7.097
Chronic disease*	1.712	0.344	2.68	0.008	1.154	2.540
Antidepressant use*	3.199	0.726	5.13	0.000	2.049	4.995
Smoking history*	2.118	0.365	4.36	0.000	1.511	2.970
Drinking history	1.221	0.167	1.46	0.145	0.933	1.599

* Significant at $p < .05$.

Results

Cross-tabulation of nurses' reported mental health status with the case definition and probability of having had an MDE revealed that 5.8% of nurses who did not meet the case definition answered *yes* when asked if they had suffered or now suffered from depression. More than half of those who met the case definition for MDE (54.7%) did not report suffering from depression. Cross-tabulation with use of anti-depressants revealed that 39.3% of depressed nurses used anti-depressants. Fully 60.7% of those who were identified as depressed according to the case definition did not use anti-depressants. Cross-tabulation of nurses' chronic disease and depression caseness revealed that the majority (89.5%) of those who were depressed according to the case definition had at least one chronic condition. There was no significant association in a cross-tabulation of nurses' depression and full-time or part-time status in their main jobs and there was no significant association between their education level and whether they met the case definition of depression. The proportion of nurses who thought the staffing on their last shift was inadequate was 35.9%; however, 95% of this group thought that the care they gave on their last shift was good to excellent. No age difference was found between depressed and non-depressed nurses ($t = 1.768$; $p = .077$).

A multivariate logistic regression analysis (Table 2) revealed that those nurses who were experiencing a higher degree of job strain were 80% more likely to have suffered an MDE in the previous year (OR 1.79; $p = 0.009$), while those who were experiencing role overload (OR 1.05; $p = 0.001$) had slightly increased odds of having had an MDE in the previous year. Nurses' perception of the care given, employer support, social support, and staffing were not statistically significant in relation to the odds of being depressed. However, nurses who had respect from their co-workers, from their supervisors, and for their efforts in general were less likely to have experienced an MDE in the previous year (OR .88; $p = 0.003$).

Age was protective, with a statistically significant negative relationship to depression (OR .98; $p = 0.008$). As age was a continuous variable in this analysis, with a negative *t* score, the younger the nurse the higher the rate of depression. If one compares a nurse of 65 years of age with a nurse of 25, the younger nurse has nearly double the odds of depression. Having a history of smoking more than doubled the odds of experiencing an MDE (OR 2.12; $p = 0.00$), while having a history of drinking was not statistically significant in relation to the odds of suffering depression. Nurses with a chronic disease diagnosis were nearly twice as likely to have suffered an MDE in the previous year as those without a chronic disease (OR 1.7; $p = 0.008$).

Discussion

This multivariate logistic regression revealed that the independent variables of role overload and job strain are significantly related to the case definition of depression. The job strain and role overload variables were scaled in the original survey, so that higher scores indicated more job stress and overload. In the present analysis, the results reflect this positive direction in the regression positive *t* scores. Depressed nurses were nearly twice as likely to be experiencing severe job strain, although the odds were somewhat lower for nurses experiencing role overload.

Respect was scaled so that higher scores reflect a greater feeling of being respected; therefore, one would surmise that more respect will be negatively related to having depression. The results of the analysis indeed support this conclusion, as the odds of being depressed were lower for nurses with higher levels of respect, as evidenced by the protective odds ratio (i.e., OR < 1). The variables for social support and employer support were not statistically related significantly to depression in the sample, nor was nurses' perception of the quality of care they provided in the last shift worked or their perception of staffing.

In conclusion, there was partial support for the hypothesis of a positive and significant association with role overload, job stress, and risk of depression in nurses. In addition, respect was negatively and significantly associated with depression in nurses. However, the hypothesis that employer and social support and the perceived quality of care provided would lessen the risk of depression was not supported by this analysis.

Implications

The results of this study lend support to findings from other research (Gilmour & Patten, 2007), notably on the presence of associations between depression, workplace stress, role overload, and respect. The results also reinforce known relationships between depression and chronic conditions. The strong association between chronic disease and depression and the fact that 75% of the sample had at least one chronic condition are worrisome findings, indicating that nurses are at risk for major health issues in addition to depression. We need occupational health-care policies and programs that are supportive of and promote the mental and physical health of nurses. One such program used in an American health-care facility was designed by Putnam, McKibbin, Lancaster, and Schwade (2003), who surmised that underutilization of EAP (thought to be related to the stigma of and barriers to accessing EAP in a traditional format) might be addressed by a multilevel implementation focused on reaching out to depressed employees in a non-threatening, holistic manner. The successful initiative included education, diagnostic tools, and surveys designed for privacy and for the busy work schedules of health-care employees, and it could be replicated in Canada.

Another interesting finding of this study with implications for the workplace is that half the nurses who met the case definition of depression did not indicate that they had suffered or were suffering from depression. One cannot be certain whether this indicates a reluctance to acknowledge illness or a lack of knowledge about depression. Seeking assistance is self-care and is indicative of health promotion, but nurses who are open about their mental illness could face repercussions. For example, the College of Nurses of Ontario, as part of its mandate to protect the public, recently adopted standards for reporting and removing from practice nurses who are deemed incapacitated (College of Nurses of Ontario, 2009). While protection of the public is paramount, one wonders if this process might prevent nurses from seeking help for or admitting to having mental health problems such as depression or addiction. Health-care providers such as physicians are reported to face increased risk of suicide related to mental health issues, in addition to risking the safety of their patients (Rosen et al., 2009). According to Rosen et al., these physicians need advocacy, not disapproval, and suicide among health-care providers may be an extreme form of withdrawal from an overwhelmingly stressful or painful situation.

The majority (60.7%) of nurses in this study who met the case definition of depression were not taking any antidepressants; considering the increasing reliance on pharmaceutical treatment for depression, this is a surprising finding. It may be, however, that nurses were receiving other therapeutic interventions for their illness.

Education of nurses on their own mental health is paramount and should begin early. It would be simplistic, however, to think that mental health literacy alone will increase nurse well-being; the complex interplay in our lives calls for integrated, long-term, coordinated solutions. One such solution in England is a broad action targeting stigma and discrimination in mental illness by a program called Time to Change (Mind and Rethink, n.d.). Reducing the stigma associated with mental illness can serve to promote healthy and inclusive workplaces that are truly supportive of nurses.

Reducing mandatory overtime, attending to scheduling, and providing adequate notice "of available work so that nurses can meet other life commitments such as childcare" are methods that employers can use to support nursing staff and at the same time benefit the organization (Wallace & Pierson, 2008). Self-scheduling, which increases staff autonomy by giving nurses control over their work schedule, is thought to promote staff retention, decrease absenteeism, and support team development (Dechant, 2006). A systematic review of the effects of workplace and individual efforts to prevent or reduce workplace stress found limited evidence of such efforts, which suggests the need for further research into risk factors (Marine, Ruotsalainen, Serra, & Verbeek, 2006). Employers who value their employees and support a holistic view, in which employment is only one part of a person's life, know that synergy between work and family demands (Gordon, Whelan-Berry, & Hamilton, 2007; Kanter, 1977) results in healthier, more committed, more engaged nurses.

Mentorship by a generation of nurses who have learned to cope with work stress and role overload during decades of change could help young nurses who, according to the results of this study, are at a higher risk for depression. However, mentorship will be most effective as a recruitment and retention initiative if it is included — and appropriately resourced — as part of the older nurse's workload and does not become an additional stressor or burden.

Limitations

As a secondary data analysis, this study was limited to the scope of the original survey; however, the NSWHN was a Statistics Canada survey with rigorous attention to design, using instruments with known reliability and dependability in a large, representative national sample.

Although certain associations between variables were apparent, in a cross-sectional study the direction or temporal association cannot be determined. For example, although there was a significant association between depression, strain, and overload in this sample of nurses, it is not clear whether depressed nurses experienced more strain and overload or whether the strain and overload preceded and increased their risk of depression.

The sample of nurses was primarily female (94%). In their analysis using data from the 2002 CCHS and NPHS surveys, Gilmour and Patten (2007) found that depression in women was nearly twice that in men (5.2% vs. 2.6%). Perhaps the rate of depression in the NSWHN sample reflects the higher rate of depression among women found in other surveys, even before considering the known stressors and workload of the profession.

Conclusion

Depression in the workplace is a costly issue for all, but is of particular concern during the shortage in health human resources now being experienced by all health-care organizations. We need increased mental health literacy, with attention to workplace education on depression — how it can be identified and where nurses and employers can obtain support for the nurse who is depressed. The stigma of mental illness can be problematic for health professionals because it can induce avoidance and isolation and a negative feedback cycle. Recognition of the complexity of mental well-being and the importance of good mental health for individuals, their communities, and their workplaces is galvanizing research aimed at producing action plans and a healthy, productive society (Jenkins et al., 2008). This work requires investment of time and money.

Nurses who are suffering from depression need to be supported by early diagnosis, so they can obtain appropriate treatment and minimize the impact on their ability to deliver safe care. Never before has this been so imperative, as the current nursing shortage is likely to worsen with the imminent retirement of aging nurses. Health-care organizations should strive to provide less stressful, more respectful workplaces in order to support the physical, emotional, and mental health of their employees in a proactive and responsive manner. This applies especially to nurses, since nurses are central to patient safety and quality outcomes in health care.

References

Adler, D., McLaughlin, T. J., Rogers, W. H., Chang, H., Lapitsky, L., & Lerner, D. (2006). Job performance deficits due to depression. *American Journal of Psychiatry, 163,* 1569–1576.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington: Author.

Armstrong, K., & Laschinger, H. (2006). Structural empowerment, magnet hospital characteristics and patient safety culture: Making the link. *Journal of Nursing Care Quality, 21*(2), 124–132.

Blackmore, E. R., Stansfeld, S. A., Weller, I., Munce, S., Zagorski, B. M., & Stewart, D. E. (2007). Major depressive episodes and work stress: Results from a national population survey. *American Journal of Public Health, 97,* 2088–2093.

Burisch, M. (1993). In search of theory: Some ruminations on the nature and etiology of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 75–94). Washington: Taylor & Francis.

Canadian Institute for Health Information. (2008). *Analytic reports: Regulated nurses: Trends, 2003–2007.* Retrieved January 23, 2009, from http://secure.cihi.ca/cihiweb/products/nursing_report_2003_ to_2007_e.pdf.

Chowhan, J., & Buckley, N. J. (2005). *Using mean bootstrap weights in Stata: A BSWREG revision.* Retrieved August 10, 2009, from http://www.statcan.gc.ca/pub/12-002-x/12-002-x2005001-eng.pdf.

College of Nurses of Ontario. (2009). *Mandatory reporting: A process guide for employers, facility operators and nurses.* Retrieved July 31, 2009, from http://www.cno.org/docs/ih/42006 _fsMandReporting.pdf.

Cox, T., Kuk, G., & Leiter, M. P. (1993). Burnout, health, work stress and organizational healthiness. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 177–193). Washington: Taylor & Francis.

Dechant, G. M. (2006). Human resource allocation: Staffing and scheduling. In J. M. Hibberd & D. L. Smith (Eds.), *Nursing leadership and management in Canada* (3rd ed.) (pp. 625–647). Toronto: Elsevier.

DeCicco, J., Laschinger, H., & Kerr, M. (2006). Perceptions on empowerment and respect: Effect of nurses' organizational commitment in nursing homes. *Journal of Gerontological Nursing, 32*(5), 49–56.

Decker, P. J., & Borgen, F. A. (1993). Dimensions of work appraisal: Stress,strain, coping, job satisfaction and negative affectivity. *Journal of Counselling Psychology, 40*(4), 470–478.

Gilmour, H., & Patten, S. B. (2007). *Health reports. Vol. 18. No 1: Depression and work impairment.* Retrieved January 9, 2009, from http://www.statcan.gc.ca/pub/82-003-x/2006001/article/ depress/82-003-x2006001-eng.pdf.

Glassman, A. H., Helzer, J. E., & Covey, L. S. (1990). Smoking, smoking cessation and major depression. *Journal of the American Medical Association, 264,* 1546–1549.

Gordon, J. R., Whelan-Berry, K. S., & Hamilton, E. A. (2007). The relationship among work-family conflict and enhancement, organizational work-family culture, and work outcomes for older working women. *Journal of Occupational Health Psychology, 12*(4), 350–364.

Hallsten, L. (1993). Burning out: A framework. In W.B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 95–113). Washington: Taylor & Francis.

Higgins, C., Duxbury, L., & Lyons, S. (2007). *Environmental and workplace health.* Retrieved January 17, 2009, from http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-secs/pdf/pubs/occup-travail/balancing-equilibre/full_report-rapport_complet-eng.pdf.

Jenkins, R., Meltzer, H., Jones, P. B., Brugha, T., Bebbington, P., Farrell, M., et al. (2008). *Foresight Mental Capital and Wellbeing project. Mental health: Future challenges.* London: Government Office for Science.

Johnson, J.V., & Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health, 78,* 1336–1342.

Kanter, R. M. (1977). *Men and women of the corporation.* New York: Basic Books.

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology, 3,* 322–355.

Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life.* New York: Basic Books.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas, K. R., et al. (2003). The epidemiology of major depressive disorder: Results from the National Comorbidity Survey Replication (NSR-R). *Journal of the American Medical Association, 289,* 3039–3105.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al. (1994). Lifetime and 12 month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry, 51,* 8–19.

Laschinger, H. K. (2004). Hospital nurses' perceptions of respect and organizational justice. *Journal of Nursing Administration, 34,* 354–364.

Lerner, D., & Henke, R. M. (2008). What does research tell us about depression, job performance and work productivity? *Journal of Occupational and Environmental Medicine, 50,* 401–410.

Marine, A., Ruotsalainen, J., Serra, C., & Verbeek, J. (2006). *Preventing occupational stress in healthcare workers.* Cochrane Database of Systematic Reviews. Retrieved January 1, 2009, from http://www2.cochrane.org/reviews/en/ab 002892.html.

Mind and Rethink. (n.d.). *Let's end mental health discrimination.* Retrieved August 7, 2010, from http://www.time-to-change.org.uk.

Piérard, E., Buckley, N., & Chowhan, J. (2004). *Bootstrapping made easy: A Stata ADO file.* Retrieved August 10, 2009, from http://www.statcan.gc.ca/pub/ 12-002-x/12-002-x2004001-eng.pdf.

Public Health Agency of Canada. (2006). *The human face of mental health and mental illness in Canada in 2006.* Retrieved January 17, 2009, from http:// www.phac-aspc.gc.ca/publicat/human-humain06/pdf/human_face_e.pdf.

Putnam, K., McKibbin, L., Lancaster, S., & Schwade, J. (2003). Beyond bootstraps: A rural, Midwestern health care organization's response to employee depression. *Complementary Health Practice Review, 8,* 128–138.

Rao, J. N. (2006). Bootstrap methods for analyzing complex sample survey data. *Proceedings of Statistics Canada Symposium: Methodological Issues in Measuring Population Health.* Ottawa: Statistics Canada.

Rehm, J., Mathers, C., Popova, S., Thavorncharoensap, M., Teerawattananon, Y., & Patra, J. (2009). Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet, 373,* 2223–2233.

Rosen, A., Wilson, A., Randal, P., Pethebridge, A. C., Codyre, D., Barton, D., et al. (2009). Psychiatrically impaired medical practitioners: Better care to reduce harm and life impact, with special reference to impaired psychiatrists. *Australasian Psychiatry, 17*(1), 11–18.

Shamian, J., Kerr, M. S., Laschinger, H. K., & Thomson, D. (2002). A hospital-level analysis of the work environment and workforce health indicators for registered nurses in Ontario's acute-care hospitals. *Canadian Journal of Nursing Research, 33*(4), 35–50.

Shields, M., & Wilkins, K. (2006). *Findings from the 2005 National Survey on the Work and Health of Nurses.* Retrieved April 22, 2009, from http://secure.cihi. ca/cihiweb/products/NHSRep06_ENG.pdf.

Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology, 1,* 27–41.

Stansfeld, S., Feeney, A., Head, J., Canner, R., North, F., & Marmot, M. (1995). Sickness absence for psychiatric illness: The Whitehall II study. *Social Science and Medicine, 40,* 189–197.

Statistics Canada. (2009). *Definitions, data sources and methods: Microdata user guide.* Retrieved April 15, 2009, from http://www.statcan.gc.ca/imdb-bmdi/document/5080_D2_T1_V1-eng.pdf.

Stephens, T., & Joubert, N. (2001). *The economic burden of mental health problems in Canada.* Retrieved November 10, 2009, from http://www.phac-aspc.gc.ca/publicat/cdic-mcc/pdf/cdic221e.pdf.

Tosteson, T., Buzas, J. S., Demidenko, E., & Karangas, M. (2003). Power and sample size calculations for generalized regression models with covariate measurement error. *Statistics in Medicine, 22,* 1069–1082.

Tourangeau, A. E., Doran, D. M., McGillis Hall, L., O'Brien Pallas, L., Pringle, D. T., & Cranley, L. A. (2007). Impact of hospital nursing care on 30-day mortality for acute medical patients. *Journal of Advanced Nursing, 57,* 32–44.

Upenieks, V. (2002). Assessing differences in job satisfaction of nurses in magnet and nonmagnet hospitals. *Journal of Nursing Administration, 32,* 564–576.

Wallace, L.-A., & Pierson, S. (2008). Case study: The initiative to improve RN scheduling at Hamilton Health Sciences. *Nursing Leadership, 21*(4), 33–41.

Wang, J. (2005). Work stress as a risk factor for major depressive episode(s). *Psychological Medicine, 35,* 865–871.

Wang, J. L. (2006). Perceived work stress, imbalance between work and family/personal lives, and mental disorders. *Social Psychiatry and Psychiatric Epidemiology, 41,* 541–548.

Wang, J., & Patten, S. (2001). Perceived work stress and major depression in the Canadian employed population, 20–49 years old. *Journal of Occupational Health Psychology, 6,* 283–289.

World Health Organization. (2008). *The global burden of disease: 2004 update.* Retrieved January 17, 2009, from http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_part4.pdf.

Zellars, K. L., Perrewe, P. L., Hochwarter, W. A., & Anderson, K. S. (2006). The interactive effects of positive affect and conscientiousness on strain. *Journal of Occupational Health Psychology, 11,* 281–289.

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Résumé

Les différences en matière de santé mentale entre des travailleurs d'âge moyen œuvrant dans une scierie rurale et des travailleurs en milieu urbain, en Colombie-Britannique

Aleck Ostry, Stefania Maggi, Ruth Hershler,
Lisa Chen, Clyde Hertzman

Cette étude a pour objectif de cerner les différences observables en matière de santé mentale entre une cohorte de travailleurs ruraux et une cohorte de travailleurs urbains, dans la province canadienne de la Colombie-Britannique. L'étude s'appuie sur une cohorte de travailleurs masculins œuvrant dans une scierie, laquelle comporte un lien probabiliste avec la BC Linked Health Database [base de données en matière de santé portant sur la population de la C.-B.] pour assurer l'objectivité des résultats en matière de santé mentale. Les chercheurs s'appuient sur l'utilisation de cas-témoins nichés et ont conçu des modèles uni- et multi-variables axés sur la régression logistique conditionnelle. Bien que les résultats diffèrent selon le résultat particulier en santé mentale, les chercheurs constatent, après avoir vérifié la présence de variables socioéconomiques confusionnelles, que les travailleurs qui demeurent ou migrent en région rurale affichent de meilleurs résultats sur le plan de la santé mentale, comparativement aux travailleurs demeurant ou migrant en milieu urbain.

Mots clés : santé mentale, rural, urbain, cas-témoins nichés

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Mental Health Differences Among Middle-Aged Sawmill Workers in Rural Compared to Urban British Columbia

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Lisa Chen, Clyde Hertzman

The study sought to determine whether differences in mental health outcomes were observable in a cohort of workers living in rural compared to urban places in the Canadian province of British Columbia. The study was based on a cohort of male sawmill workers. The cohort was probabilistically linked to the BC Linked Health Database in order to yield objective mental health outcomes. A nested case control design was used. Univariate and multivariate models were constructed using conditional logistic regression. While results differed according to the particular mental health outcome, after controlling for socio-economic confounders it was found that workers who remained in or migrated to rural places tended to have better mental health outcomes than workers who remained in or migrated to urban places.

Keywords: mental health, rural, urban, nested case control study, Canada

Introduction

There is a long history of research linking deterioration in social relations with urbanization and declining mental health among city dwellers (Fischer, 1976; Gaviria et al., 1986; Harpham, 1994; Leighton, 1959; Leighton, Harding, Macklin, Macmillan, & Leighton, 1963; Neff, 1983; Tofler, 1970; Wirth, 1938). While empirical evidence appears to support these results, many studies of rural/urban differences in mental health are methodologically flawed (Canadian Institute for Health Information, 2006; Fiona et al., 2002; Mueller, 1981).

This article reports on a methodologically rigorous study using objectively determined mental health outcomes in a cohort of current and former sawmill workers living in rural or urban places or migrating between rural and urban places in the Canadian province of British Columbia. We sought not only to investigate rural/urban differences in mental health among these workers but also to examine outcomes among workers who migrated from either urban or rural places.

Literature Review

There is a small body of international literature comparing rural and urban mental health outcomes among adults. According to Fiona (2002) and Marsella (1998), results of most studies conducted prior to 2000 are difficult to interpret because of poor study design, mainly because they used inconsistent definitions of rurality, self-reported mental health outcomes, failed to control for SES (socio-economic status) confounders, and were cross-sectional. Nonetheless, except for a National Center for Health Statistics (1970) study, American studies conducted prior to the early 1990s found that people in cities were at greater risk for adverse mental illness than rural residents. The term "rural" was not defined consistently across these American studies (Blazer et al., 1985; Comstock & Helsing, 1976; Dohrenwend & Dohrenwend, 1974; Gaviria et al., 1986; Harpham, 1994; Leighton et al., 1963; Mueller, 1981; Neff, 1983; Robins, Helzer, Croughan, & Ratcliff, 1981; Toffler, 1970; Wirth, 1938).

Most American studies conducted since 1990 have also demonstrated a higher prevalence of mental illness in urban compared to rural places (Bourdon, Donald, Locke, Narrow, & Regier, 1992; Regier et al., 1993; Robins, Locke, & Regier, 1991). The exception is a large study by Kessler et al. (1994) that, while demonstrating significant regional differences across the United States in the lifetime prevalence of psychiatric disorders, found that "the effects of urbanicity at the county level are generally not significant" (p. 15). This study had a very large sample size relative to previous American studies; it was nationally representative and was well designed, with control for socio-economic confounders.

In several British studies, the prevalence of depression (Brown & Prudo, 1981; Prudo, Brown, Harris, & Dowland, 1981) and psychiatric morbidity (Lewis & Booth, 1994; Paykel, Abbott, Jenkins, Brugha, & Meltzer, 2000) was found to be greater in urban compared to rural places. Similar results were found in the Netherlands (Bijl, Ravalli, & van Zessen, 1998). The results of two multinational European studies undertaken recently are more equivocal. Ayuso-Mateos et al. (2001) found a higher prevalence of depressive disorders in urban places in the United Kingdom and Ireland but not in Finland or Norway. In a representative survey of the adult population in Belgium, France, Germany, Italy, the Netherlands, and Spain, Kovess-Masféty, Alonso, de Graaf, Demyttenaere, and the ESEMeD 2000 Investigators (2005) found no difference in self-reported psychiatric disorders among urban and rural residents after controlling for potential SES confounders in four of the six nations surveyed. Finally, in a meta-analysis of 20 population-based studies conducted mainly in Europe and North America, Peen, Schoevers, Beekman, and Dekker (2010) found that for psychiatric disorders, mood disorders, and anxiety disorders odds were higher and statistically significant in urban compared to rural places.

In Canada, one of the earliest studies of rural/urban differences in psychiatric morbidity was undertaken by Kovess, Murphy, and Tousignant (1987). These authors used DSM-III *(Diagnostic and Statistical Manual of Mental Disorders)* criteria to assess 6-month prevalence for major depressive episodes (MDEs). They were able to organize their analysis into a comparative investigation of urban, small town, and "pure" rural dwellers. The 6-month prevalence rates for MDE were 3.7 (per 100 people age 18 or older) in Montreal, 2.9 in the countryside, and 1.1 in the small town.

Results from the Ontario Health Survey (OHS) and the National Population Health Survey (NPHS) for 1994/95, 1996/97, and 1998/99 show that 1-year prevalence for MDE was always higher in urban compared to rural locales, ranging from 4.2% to 5.9% in urban places and from 3.2% to 4.8% in rural places across the surveys. The greatest difference was observed in the 1996/97 NPHS, which showed a rate of 5.1% in urban areas and 3.6% in rural areas (Patten, Wang, Beck, & Maxwell, 2005). Further analysis of the OHS results was undertaken by Parikh et al. (1996). The final sample consisted of 7,107 urban and 2,856 rural residents, representing one of the largest rural mental health samples ever studied. In this study, residents of the urban core and urban fringes of Census Metropolitan Areas or Census Agglomerations were designated as urban and the rest of the sample as rural. Twelve-month rates for MDE were 4.2% in urban and 3.2% in rural regions of the province, although this difference was not statistically significant. Wang (2004), using the NPHS definition for urban area (i.e., a minimum population of 400 per square kilometre, with all territories outside this area deemed rural), found the 12-month prevalence of MDE to be 4.6% in urban and 3.8% in rural regions. These results are similar to those found by Parikh et al. (1996) in Ontario, and are also not statistically significant.

The limited Canadian literature indicates consistent but small differences (often not statistically significant) in depression and MDE between urban and rural regions. The few analyses conducted in Canada that have controlled adequately for differences in socio-economic conditions in rural and urban regions indicate significantly higher odds for MDE among urban residents. Finally, all of these studies are limited by their focus on one psychiatric outcome: depression.

Methods

This study was based on a cohort of male sawmill workers. The cohort was gathered in two waves in the late 1980s and late 1990s originally to assess the effects of chlorophenol anti-sapstain exposure on mortality and cancer outcomes among sawmill workers. Fourteen medium to large sawmills (i.e., employing 150 to 450 workers) were identified; some were located in urban and others in rural areas of British Columbia.

Research assistants were sent to each mill, where they viewed personnel records with data on job start and end dates and job titles held by employees while working at the mill. Any worker employed for at least 1 year in one of the 14 mills between 1950 and 1998 was included in the cohort, resulting in a final cohort of 28,794 workers. From personnel records, we obtained, for each cohort member, data on age, marital status (classified as *unmarried* [separated, divorced, single] or *married*), ethnicity (classified as *Caucasian, Sikh,* or *Chinese*), duration of employment at the mill, and detailed job title for each job held while employed at the mill.

There are approximately 50 basic job titles in a sawmill. For this analysis, these job titles were collapsed into four broad occupational status variables: manager, tradesman, skilled worker, and unskilled worker. No information was available in the personnel records for education or income. However, given that wages for jobs in sawmills are based on a fairly rigid pay structure negotiated and applied uniformly across all 14 mills, and given that these wages are largely based on the education and experience required to perform them, our four broad occupational categories are a reasonable proxy for the different levels of income and education found among cohort members.

Information on duration of employment was obtained from job title records, which described start date, end date, and job title for each job held by each worker while that person was employed at the mill. If a worker held many jobs while employed at a mill, duration of employment was calculated by summing across all job titles. For a detailed description of the original methods used in gathering this cohort, see Hertzman et al. (1997).

Obtaining Information on Mental Health Outcomes

Health information for each cohort member was obtained by probabilistic linkage to national mortality files. We also probabilistically linked each worker to the BC Linked Health Database (BCLHDB). This database consists of person-specific longitudinal records on all residents of British Columbia. The BCLHDB contains files on all births, utilization of physician services, and hospital discharges from 1985 to the present. It is managed according to the provisions of British Columbia's *Freedom on Information and Protection of Privacy Act.* Each file is stored separately but has been indexed with an individual service-recipient-specific code so that the records of groups of individuals can be linked across files for specific research projects.

There is evidence indicating that an individual's reaction to stressful life events may be mediated by genetic predispositions and may show familial predispositions (McGuffin, Katz, Aldrich, & Bebbington, 1988; Plomin, Lichtenstein, Pedersen, McClearn, & Nesselroade, 1990). However, the present work focused on those mental health outcomes that are thought to have a significant environmental component. There is evidence indicating that the social environment could contribute to the triggering of psychotic mental states but that it may not be the underlying cause of psychotic disorders (van Os, 2003). Accordingly, we excluded psychotic disorders from the analyses, which were instead focused on neurotic disorders, anxiety/depression, acute reaction to stress, and adjustment reaction.

Complete hospital diagnoses as well as physician visits for mental health conditions were available in the BCLHDB from January 1, 1994, to December 31, 2001. Cases eligible for selection over this 8-year period included all those with a first ICD9 diagnostic code of 292 (drug psychosis), 300 (neurotic disorder), 303 (alcohol dependence syndrome), 304 (drug dependence), 305 (non-dependent abuse of drugs), 308 (acute reaction to stress), 309 (adjustment reaction), and 311 (anxiety/depression). For reasons of statistical power it was necessary to obtain at least 300 cases per diagnostic code. Only four diagnostic codes met these criteria: 300, 308, 309, and 311.

In this study we focused on neurotic disorders, which are collections of psychiatric disorders without psychotic symptoms and lacking the intense psychopathology of depression; adjustment reaction, which is psychological response to an identifiable stressor or group of stressors that cause(s) significant emotional or behavioural symptoms that do not meet the criteria for anxiety disorder, post-traumatic stress disorder, or acute stress disorder; acute reaction to stress, which is a psychological condition arising in response to a traumatic event; and anxiety/depression.

Definitions of Rural and Urban

Of the 14 sawmills covered by the study, three situated in Greater Vancouver and one situated in Kelowna were designated "urban." The remaining 10, situated across the province, were in locations with under 100,000 population and were designated "rural."

Selection of Cases and Controls

For each case, we used postal codes available in the BCLHDB to identify the place where the person was living when diagnosed with a mental health outcome. We ascertained *rural* or *urban* location and *migration patterns* prior to diagnosis. To ensure consistency with our definitions of rural and urban, we then determined whether the population of the place of diagnosis was under or over 100,000. If it was under 100,000, the place was classified as rural; if over 100,000, it was classified as urban.

In this way we were able to determine whether a case that originated at an urban mill had remained in the same urban location (urban stay) or had moved away from this mill (migrate from urban). Similarly, we determined whether a case that originated at a rural mill remained at the same location (rural stay), moved to an urban location (migrate rural to urban), or moved to another rural location (migrate rural to rural). This classification scheme therefore identified two types of case that were non-migrators (those who stayed in the same urban location and those who remained in the same rural location), as well as three types involving migration (rural dwellers who migrated away from their original urban location, rural dwellers who migrated to an urban place, and rural dwellers who migrated away from their original rural place to another rural place). Note that we did not determine whether the urban dwellers who migrated away from their original urban location moved to another urban place or to a rural one; we determined only that they migrated away from an urban location. Finally, for a few workers the migration pattern was impossible to ascertain because their postal codes after their mill employment were unavailable, likely because they had moved away from British Columbia; these were assigned the category of unknown migration status.

Analysis

Using STTOCC (survival time to case control) on Stata 8.0, we selected three controls for each case matched on age. Controls were chosen randomly with replacement from the set at risk — that is, all members of the cohort who worked in one of the 14 sawmills for at least 1 year. Thus a control could be anyone at risk who also satisfied the matching criteria and who had not had a mental health diagnosis up to the time of diagnosis of the case.

Age, marital status, ethnicity (Caucasian, Sikh, or Chinese), duration of employment, and occupational status (manager, tradesman, skilled worker, unskilled worker) while employed at a sawmill were obtained from personnel records. Statistical analyses were conducted using conditional logistic regression on Stata 8.0. Univariate models were first run with each mental health outcome and exposure variables: marital status, ethnicity, duration of employment, and occupational status. In multivariate models, marital status, ethnicity, duration of employment, and occupation were forced into the model and associations with the five categories of worker location were tested for.

For each outcome we obtained five odds ratios. The absolute sizes of these are of interest, as are the relative sizes. For example, in the case of neurotic disorders for adults, the following odds ratios were found:

Urban stay. The odds ratio is a comparison of cases with controls who have the same urban locational trajectory.

Migrate from urban. The odds ratio is a comparison of cases with controls who migrate away from the original community. Because most of these are migrations to rural places, they are in effect urban to rural migrations.

Rural stay. The odds ratio is a comparison of cases with controls who have the same rural locational trajectory.

Migrate rural to rural. The odds ratio is a comparison of cases with controls who migrate from one rural community to another.

Migrate rural to urban. The odds ratio is a comparison of cases with controls who migrate from a rural community to an urban one.

Results

Table 1 shows the number of controls and cases used in the analysis for all four mental health outcomes. Table 2 show descriptive results averaged for each mental health outcome.

Table 1 ***Number of Cases and Controls for Mental Health Outcomes***

Mental Health Outcome	**Cases**	**Controls**
Anxiety/depression	2,607	7,816
Neurotic disorder	2,102	6,306
Acute reaction to stress	1,368	4,104
Adjustment reaction	711	2,133

For all four outcomes, *urban stay* constitutes about 30% of subjects, *migrate from urban* about 10%, *rural stay* about 30%, and *migrate from rural to rural* and *migrate from rural to urban* about 15% each, with the remainder (i.e., persons with unknown migrant status) accounting for less than 2% of subjects. About one third of subjects were married. Most (about 90%) were Caucasian. Unskilled workers accounted for between 45% and 55%, on average, of cases and controls.

Table 3 shows the univariate results. Workers who remain at an urban mill have higher odds for neurotic disorder (statistically significant), adjustment reaction (statistically significant), and acute reaction to stress (not statistically significant). Workers who migrate away from an urban mill have lower odds for neurotic disorder (statistically significant), adjust-

Table 2 ***Averaged Descriptive Statistics for Cases and Controls***

Variable	Cases (%)	Controls (%)
Urban stay	460 (33.6)	1,261 (30.7)
Migrate from urban	106 (7.7)	300 (7.3)
Rural stay	340 (24.9)	1,197 (29.2)
Migrate rural to urban	272 (19.9)	573 (14.3)
Migrate rural to rural	179 (13.1)	702 (17.1)
Unknown migration status	11 (0.8)	70 (1.7)
Married	421 (33.8)	1,321 (35.3)
Unmarried	826 (66.2)	2,418 (64.7)
Chinese	13 (0.9)	65 (1.6)
Sikh	108 (7.9)	229 (5.6)
Caucasian	1,247 (91.2)	3,809 (92.8)
Manager	42 (4.0)	199 (6.4)
Trades	313 (29.6)	947 (30.3)
Skilled	241 (22.8)	716 (22.9)
Unskilled	460 (43.6)	1,261 (40.4)
Average age of cases and controls	51.8 years	

ment reaction (statistically significant), and anxiety/depression (not statistically significant) and higher odds for acute reaction to stress (not statistically significant). Relative to workers who remain in an urban place, those who remain in a rural place have lower odds for all four mental health outcomes, and these are statistically significant for acute reaction to stress and adjustment reaction. In contrast, workers who migrate from a rural to an urban place have higher odds (statistically significant) for all four mental health outcomes. Finally, odds for all four mental health outcomes are lower for workers who migrate from one rural place to another. These lowered odds are statistically significant for neurotic disorder, adjustment reaction, and anxiety/depression.

Multivariate results (Table 4) illustrate that, after controlling for marital status, ethnicity, occupational status, and duration of employment, workers who migrate away from an urban mill have lower odds for neurotic disorder (statistically significant), adjustment reaction (statistically significant), and anxiety/depression, and higher odds for acute reaction to stress. Relative to workers who remain in an urban place, those who remain in a rural place have lower odds for neurotic disorder, acute reac-

Table 3 ***Univariate Analyses: Odds Ratios for Four Mental Health Diagnoses Among Sawmill Workers, 1994–2001***

Location	**Mental Health Diagnosis** **Neurotic disorder ICD9 = 300 (*n* = 6,306)**	**Acute reaction to stress ICD9 = 308 (*n* = 4,104)**	**Adjustment reaction ICD9 = 309 (*n* = 2,133)**	**Anxiety/ depression ICD9 = 311 (*n* = 7,816)**
Urban stay	1.14 (1.02, 1.27)	1.04 (.84, 1.29)	1.42 (1.08, 1.87)	.99 (.85, 1.15)
Migrate from urban	.67 (.48, .93)	1.19 (.82, 1.72)	.82 (.48, 1.38)	.94 (.73, 1.21)
Rural stay	.94 (.79, 1.11)	.68 (.54, .86)	.74 (.55, .99)	1.04 (.89, 1.21)
Migrate rural to urban	1.58 (1.28, 1.94)	1.69 (1.30, 2.19)	1.54 (1.11, 2.13)	1.30 (1.09, 1.56)
Migrate rural to rural	.75 (.60, .94)	.86 (.66, 1.11)	.63 (.44, .99)	.77 (.63, .92)

Note: Figures in parentheses are 95% confidence intervals.

Table 4 *Multivariate Analyses: Odds Ratios Among Sawmill Workers, 1994–2001*

	Mental Health Diagnosis			
	Neurotic disorder ICD9 = 300 (*n* = 6,306)	**Acute reaction to stress ICD9 = 308 (*n* = 4,104)**	**Adjustment reaction ICD9 = 309 (*n* = 2,133)**	**Anxiety/ depression ICD9 = 311 (*n* = 7,816)**
Duration of job at sawmill (years)	.99 (.98, 1.01)	.99 (.98, 1.01)	.97 (.95, .99)	1.00 (.98, 1.01)
Marital status	1.00 (1.00, 1.00)	.98 (.97, 1.02)	.97 (.96, 1.01)	1.00 (100, 1.00)
Manager	1	1	1	1
Tradesman	1.09 (.72, 1.65)	1.28 (.72, 2.25)	.76 (.38, 1.50)	1.06 (.74, 1.53)
Skilled worker	1.30 (.85, 2.00)	1.05 (.58, 1.88)	1.25 (.62, 2.49)	1.24 (.85, 1.79)
Unskilled worker	1.09 (.73, 1.63)	1.24 (.71, 2.17)	1.34 (.70, 2.54)	1.18 (.83, 1.69)
Caucasian	1	1	1	1
Chinese	.71 (.32, 1.56)	.56 (.21, 1.48)	.40 (.11, 1.41)	.20 (.06, .63)
Sikh	1.28 (.94, 1.75)	1.39 (.93, 2.09)	1.08 (.64, 1.82)	1.28 (.99, 1.68)
Urban stay	1	1	1	1
Urban migrate	.64 (.45, .92)	1.11 (.74, 1.65)	.56 (.32, .99)	.92 (.70, 1.22)
Rural stay	.90 (.73, 1.12)	.74 (.56, .98)	.71 (.50, 1.01)	1.03 (.86, 1.25)
Rural to urban	1.38 (1.08, 1.77)	1.50 (1.11, 2.03)	.97 (.65, 1.45)	1.22 (.98, 1.52)
Rural to rural	.75 (.58, .97)	.86 (.63, 1.16)	.48 (.31, .72)	.80 (.64, 1.00)
Unknown migration status[a]	.62 (.18, 2.18)	1.23 (.47, 3.27)	.79 (.15, 4.23)	1.02 (.37, 2.80)

[a] Most of these workers likely left British Columbia and so were lost to follow-up.

Note: Figures in parentheses are 95% confidence intervals.

tion to stress, and adjustment reaction. Odds are higher for anxiety/depression. Statistically significant lower odds for rural stayers were found only in the case of acute reaction to stress. Workers who migrated from a rural mill to an urban place had elevated odds for neurotic disorder, acute reaction to stress, and anxiety/depression (statistically significant). In contrast, workers who migrated from a rural mill to another rural place had lower odds for all four outcomes (statically significant for neurotic disorder, adjustment reaction, and anxiety/depression).

Discussion

The main findings of this investigation are that after controlling for socio-economic confounders, (1) workers who migrate from their original rural place to another rural place have lower odds for neurotic disorder, adjustment reaction, and anxiety/depression than workers who remain in their original urban location; (2) workers who migrate from their original rural place to an urban location have elevated odds for neurotic disorder and acute reaction to stress; (3) workers who migrate from their original urban place (most of these workers migrated to a rural place) have reduced odds for neurotic disorder and adjustment reaction; (4) workers who remain in their original rural location have lower odds for adjustment reaction compared to workers who remain in an urban location; and (5) the results differ depending on the particular mental health outcome investigated.

Several large and well-conducted Canadian studies have observed higher odds for depression among urban compared to rural residents (Kovess et al., 1987; Parikh, Wasylenki, Goering, & Wong, 1996; Wang, 2004). These observations are in accord with those of most studies of rural/urban differences in depression conducted in other countries (Fiona et al., 2002; Peen et al., 2010). Similarly, our results suggest that, for depression, there are no statistically significant differences between rural and urban residents or migrants.

However, unlike other Canadian studies, we present results for three objectively determined diagnoses other than depression (i.e., neurotic disorder, acute stress reaction, and adjustment reaction). These results indicate, especially in the case of neurotic disorder, large and statistically significant differences by location and migration status. For example, the odds for neurotic disorder among workers who migrate from a rural to an urban place were 1.38, and the odds for this same disorder were 0.75 for workers migrating from one rural place to another. These results indicate the importance of investigating mental health outcomes other than depression when exploring differences in mental health across the rural/urban continuum.

There were several limitations to this study. Outcomes were based on ICD9 codes, which were in turn based on visits to physicians' offices and hospitalizations. In other words, outcomes were for mental health cases severe enough to require a visit to a physician or a hospital admission. Thus, this was a study of serious mental illness, as we did not use outcomes most often utilized in these types of study such as self-reported mental health. This limits the comparability of the results with those of other studies of rural/urban mental health, most of which are focused on less severe outcomes. Another limitation is that the study was based on males only. Also, as it was based on a special population of workers and was therefore not representative of the general population, the findings cannot be generalized. The definition of rural used in this investigation is very broad; rural place was defined simply as any population centre with less than 100,000 people. So, in effect, we were measuring the difference between residents of Census Metropolitan Areas and those living "elsewhere." This threshold for rurality is much higher than that used in most studies of differences in mental health across the urban/rural continuum, further limiting the comparability of the findings. Finally, our classification of workers' locational trajectories was crude. In particular, we did not divide urban migrators into those who migrate to other urban places and those who migrate from urban to rural places. However, despite these limitations the study had a great many strengths.

The study was rigorous. We used objective outcomes for serious mental illness, controlled for socio-economic differences among participants, and employed a nested case control design. Furthermore, it was conducted among current and former sawmill workers with similar work cultures, incomes, and backgrounds; observed differences in mental health outcomes by rural/urban location or by migration are less likely to be confounded than if the study had been conducted among a less homogeneous population. Because the study was based on a population originally selected on the basis of its active employment status, it largely excluded unhealthy participants. This means that people with serious organic mental health conditions were less likely to be selected into the cohort than would be the case with a less rigorously designed study; outcomes measured are likely to have arisen during the course of employment or post-employment and are likely attributable to changed environmental conditions related to location and migration. Finally, as noted by most researchers on the rural/urban health divide, in studies of this type it is important to not only measure mental health outcomes among rural and urban residents but also to assess the effects of migration between rural and urban places. This study did exactly that, and because it also ascertained migration status and location prior to diagnosis of a mental health condition, it is unlikely that the diagnosis influenced either location or migration.

One of the implications of the findings is the need for research using outcomes other than depression. Many studies, both internationally and in Canada, indicate fairly consistently that while urbanites have higher rates of depression than their rural counterparts, the differences are often not statistically significant. If our study had focused on depression only, the results would have been similar. However, by expanding the investigation to other mental health diagnoses we were able to obtain a more complex picture of rural/urban differences in mental health. Because our study obtained results for depression similar to those of other studies, was conducted with a very homogeneous population, and was well controlled for SES, confounding our statistically significant results for neurotic disorder, adjustment reaction, and acute reaction for stress across the rural/urban continuum indicates the importance of expanding the study of mental health and rural/urban differences beyond the current focus on depression.

References

Ayuso-Mateos, J. L., Vazquez-Barquero, J. L., Dowrick, C., Lehtinen, V., Dalgard, O. S., & Casey, P. (2001). Depressive disorders in Europe: Prevalence figures from the ODIN study. *British Journal of Psychiatry, 179,* 308–316.

Bijl, R. V., Ravalli, A., & van Zessen, G. (1998). Prevalence of psychiatric disorder in the general population: Results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Social Psychiatry and Psychiatric Epidemiology, 33,* 587–595.

Blazer, D., George, L. K., Landerman, R., Pennybacker, M., Melville, M., & Woodbury, M. (1985). Psychiatric disorders: A rural/urban comparison. *Archives of General Psychiatry, 42,* 651–656.

Bourdon, K. H., Donald, S. R., Locke, B. Z., Narrow, W. E., & Regier, D. A. (1992). Estimating the prevalence of mental disorders in US adults from the Epidemiologic Catchment Area Study. *Public Health Reports, 107,* 663–668.

Brown, G. W., & Prudo, R. (1981). Psychiatric disorder in a rural and an urban population: 1. Aetiology of depression. *Psychological Medicine, 11,* 581–599.

Canadian Institute for Health Information. (2006). *How healthy are rural Canadians? An assessment of their health status and health determinants.* Ottawa: Author.

Comstock, G. W., & Helsing, K. J. (1976). Symptoms of depression in two communities. *Psychological Medicine, 6,* 551–563.

Dohrenwend, B. P., & Dohrenwend, B. S. (1974). Psychiatric disorders in urban settings. In G. Caplan (Ed.), *American handbook of psychiatry.* Vol. 2: *Child and adolescent psychiatry, sociocultural and community psychiatry* (pp. 424–449). New York: Basic Books.

Fiona, K., Judd, H. J., Jackson, A. K., Greg, M., Hodgins, G., & Fraser, C. (2002). High prevalence disorders in rural and urban communities. *Australia/New Zealand Journal of Psychiatry, 36*(1), 104–113.

Fischer, C. S. (1976). *The urban experience.* New York: Harcourt Brace Jovanovich.

Gaviria, F. M., Richman, J., Flaherty, J. A., Wintrob, R. M., Martinez, H., & Pacheco, C. G. (1986). Migration and mental health in Peruvian society: Toward a psychosocial model. *Social Psychiatry, 21,* 193–199.

Harpham, T. (1994). Urbanization and mental health in developing countries: A research role for social scientists, public health professionals and social psychiatry. *Social Science and Medicine, 39*(2), 233–245.

Hertzman, C., Teschke, K., Ostry, A., Hershler, R., Dimich-Ward, H., Kelly, S., et al. (1997). Cancer incidence and mortality in sawmill workers exposed to chlorophenols. *American Journal of Public Health, 87*(1), 71–79.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., & Eshleman, S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry, 51,* 8–19.

Kovess, V., Murphy, H. B. M., & Tousignant, M. (1987). Urban-rural comparisons of depressive disorders in French Canada. *Journal of Nervous and Mental Diseases, 175*(8), 457–465.

Kovess-Masféty, V., Alonso, J., de Graaf, R., Demyttenaere, K., & the ESEMeD 2000 Investigators. (2005). A European approach to rural-urban differences in mental health: The ESEMeD 2000 Comparative Study. *Canadian Journal of Psychiatry, 50*(14), 926–936.

Leighton, A. H. (1959). *My name is legion: Foundations for a theory of man in relation to culture,* Vol. 1. New York: Basic Books.

Leighton, D. C., Harding, J. S., Macklin, D. B., Macmillan, A. M., & Leighton, A. H. (1963). *The character of danger: Psychiatric symptoms in selected communities,* Vol. 3. New York: Basic Books.

Lewis, G., & Booth, M. (1994). Are cities bad for your mental health? *Psychological Medicine, 24,* 913–915.

Marsella, A. (1998). Urbanization, mental health, and social deviancy: A review of issues and research. *American Psychologist, 53*(6), 624–634.

McGuffin, P., Katz, R., Aldrich, J., & Bebbington, P. (1988). The Camberwell Collaborative Depression Study. II: Investigation of family members. *British Journal of Psychiatry, 152,* 766–774.

Mueller, D. P. (1981). The current status of urban-rural differences in psychiatric disorder: An emerging trend for depression. *Journal of Nervous and Mental Disease, 169*(1), 18–27.

National Center for Health Statistics. (1970). Selected symptoms of psychological distress. *Vital and Health Statistics Series, 11*(37), 1–42.

Neff, J. A. (1983). Urbanicity and depression reconsidered: The evidence regarding depressive symptomatology. *Journal of Nervous and Mental Disease, 171*(9), 546–552.

Parikh, S. V., Wasylenki, D., Goering, P., & Wong, J. (1996). Mood disorders: Rural/urban differences in prevalence, health care utilization, and disability in Ontario. *Journal of Affective Disorders, 38,* 57–65.

Patten, S. B., Wang, J., Beck, C. A., & Maxwell, C. J. (2005). Measurement issues related to the evaluation and monitoring of major depression prevalence in Canada. *Chronic Diseases in Canada, 26*(4), 100–106.

Paykel, E. S., Abbott, R., Jenkins, R., Brugha, T. S., & Meltzer, H. (2000). Urban-rural mental health differences in Great Britain: Findings from the National Morbidity Survey. *Psychological Medicine, 30,* 269–280.

Peen, J., Schoevers, R. A., Beekman, A. T., & Dekker, J. (2010). The current status of urban-rural differences in psychiatric disorders. *Acta Psychiatrica Scandinavica, 121,* 84–93.

Plomin, R., Lichtenstein, P., Pedersen, N. L., McClearn, E. G., & Nesselroade, J. R. (1990). Genetic influences on life events during the last half of the life span. *Psychology and Aging, 5,* 25–30.

Prudo, R., Brown, G. W., Harris, T., & Dowland, J. (1981). Psychiatric disorder in a rural and an urban population. 2. Sensitivity to loss. *Psychological Medicine, 11,* 601–616.

Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto US mental and addictive disorders service system: Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry, 50,* 85–94.

Robins, L. N., Helzer, J. E., Croughan, J., & Ratcliff, K. S. (1981). National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. *Archives of General Psychiatry, 38,* 381–389.

Robins, L. N., Locke, B. Z., & Regier, D. A. (1991). An overview of psychiatric disorders in America. In L. N. Robins & D. A. Regier (Eds.), *Psychiatric disorders in America: The Epidemiologic Catchment Area study* (pp. 328–366). New York: Free Press.

Toffler, A. (1970). *Future shock.* New York: Bantam.

van Os, J. (2003). Can the social environment cause schizophrenia? *British Journal of Psychiatry, 182,* 291–292.

Wang, J. L. (2004). Rural-urban differences in the prevalence of major depression and association impairment. *Social Psychiatry and Psychiatric Epidemiology, 39,* 19–25.

Wirth, L. (1938). Urbanism as a way of life. *American Journal of Sociology, 44*(1), 1–24.

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Happenings

The Mental Health Commission of Canada Is Three Years Old: An Update and Reflection

David S. Goldbloom

The Mental Health Commission of Canada (MHCC) came formally into existence in September 2007, created by the federal government as a not-for-profit national corporation at arm's length from Health Canada, its principal funder. Recommendations for the creation of such an organization were embedded in the Senate Standing Committee on Social Affairs, Science and Technology's report on mental health in Canada, titled *Out of the Shadows at Last*. This publication, reporting on the most comprehensive study of mental health in Canada in many decades, brought together, among other findings, what many people with lived experience of mental illness, family members, health-care providers, social service agencies, and researchers already knew — that Canada lacks an integrated system of care and a national strategy on mental health and mental illness and that the burden of stigma and discrimination is overwhelming.

The MHCC was given funding and a mandate to engage in three principal tasks over the course of 10 years: (1) develop a national mental health strategy (Canada is the only G8 nation that lacks one); (2) develop, implement, and evaluate a sustained and multidimensional anti-stigma, anti-discrimination campaign (Canada is far behind other Western nations in this regard); and (3) create a national and virtual knowledge exchange centre (leveraging technology to overcome Canadian geography and to take advantage of our highly wired status as a nation, providing both a single portal of entry and a filter for quality of information). At the same time, the MHCC does not provide direct clinical services and does not monitor government performance. It does not do direct advocacy with government. It exists outside the federal/provincial/territorial constitutional framework of health, acting as a catalyst and collaborator at multiple levels.

After countrywide consultations, a framework document on the high-level goals of a national strategy was released in December 2009, and it has already had an impact on provincial government planning. The next phase of the national strategy relates to implementation and will produce results by 2012.

The anti-stigma initiative, academically informed by Professor Heather Stuart of Queen's University, an international authority in this area, is currently evaluating more than 40 programs in Canada judged by an international panel as worthy of further scrutiny and dissemination. Rather than being a universal campaign, the current phase of the anti-stigma efforts is targeted towards attitudes and behaviours of children, youth, and health professionals. Changing the attitudes and behaviours of young people can lead to a more enduring benefit, and the MHCC has heard repeatedly that one of the areas where people with mental illnesses most commonly experience stigma is health-care settings — offices, emergency rooms, inpatient units, and so forth — from a variety of health professionals.

The knowledge exchange project has developed more slowly; there has been trepidation around the potential for duplication, the rapidly advancing pace of Web technology, and the potential for information technology to consume significant financial resources (as is the case in electronic health records).

The MHCC board composition reflects its values. Government appointees form the minority of members and are largely deputy ministers of health from the three levels of government (federal, provincial, and territorial). Non-government appointees represent a range of constituencies and competencies, with particular emphasis on people with lived experience of mental illness, family members, and health professionals from a variety of disciplines. The MHCC's president and CEO, Louise Bradley, is a highly regarded psychiatric nurse and seasoned administrator.

The MHCC's eight Advisory Committees (Science; Children and Youth; Seniors; Workforce; Family Caregivers; Service System; Mental Health and the Law; and First Nations, Inuit, and Métis) reflect organizational priorities and include academic experts from across the country as well as people with lived experience and family members. The Advisory Committees have already generated 25 important MHCC-funded research projects, many of which are now nearing completion. Details of these and all other MHCC initiatives and activities are available on the MHCC Web site (www.mentalhealthcommission.ca).

Since 2007, the MHCC has taken on two additional projects: the At Home/Chez Soi Project on homelessness and mental illness, and the creation of a social movement called Partners for Mental Health. Both of these bear elaboration.

The At Home Project received a grant of $110 million from Health Canada to conduct action research on homelessness and mental illness in five Canadian cities — Vancouver, Winnipeg, Toronto, Montreal, and Moncton — each of which faces its own contextual problems related to homelessness. This study, which will run to 2013, will involve more than 2,000 participants who will take part in a randomized design comparing a "housing first" approach with treatment as usual, with further experimental variations adapted to the local context of each city. Hundreds of individuals have already been enrolled and housed. This is the largest experimental-design research project on homelessness and mental illness in the world, and European countries are already looking to the model for replication. In each city, new collaborations have been forged among health-care providers, social service agencies, housing operators, and others to make this project a success. The At Home Project reflects the catalytic ability of the MHCC across many dimensions — in receiving a substantial grant from the federal government to implement a five-city research design academically led by a senior nurse scholar, Paula Goering, in rapidly coalescing consortia to deliver the housing and clinical services, and in ensuring that appropriate quantitative and qualitative measures will advance knowledge and ultimately care and quality of life for affected individuals. For a national organization that did not exist just 3 years ago, this project alone reflects vertical take-off.

Our country has seen many initiatives come and go. The question of sustainability must be considered at the beginning, not simply at the end. In that regard, the MHCC has committed to fostering a social movement that will endure long beyond its own mandate and will keep mental health and mental illness "out of the shadows" forever. One of the lessons learned from breast cancer, HIV, and other health and political causes is that broad-based social movements strong on advocacy and community education can have a profound impact in raising awareness, enhancing clinical services, and augmenting research funding. We at the MHCC also believe that this is a superb opportunity to provide anti-stigma programming in a local context. The Partners for Mental Health Program will be launched in the next 12 months and will engage Canadians coast to coast to coast.

In its 3 short years, the MHCC has gone from a full-time staff of two people to over 60 full-time equivalents; it has secured 10 years of operational funding and additional money for the homelessness initiative; it has opened national offices in Calgary and Ottawa. It is collaborating with other mental health commissions internationally as well as with all levels of government and a variety of mental health and professional organizations. It is on the cusp of a major campaign to engage all Canadians.

Expectations are high. At the same time, in the words of one of the MHCC Advisory Committee chairs, we cannot expect to "boil the ocean" in solving all the problems of the determinants of mental health and illness. The opportunity is unprecedented. Despite the constitutional reality of responsibility for health care, the response from all levels of government to the MHCC's mission has been very positive and the recent priority placed on mental health is encouraging. The challenge relates to resource allocation, competing priorities, and shifting professional and public attitudes and behaviours.

For Canadian health professionals, the question is not *What will the MHCC do for me in helping people with mental illness?* but, rather, *How can I contribute to and take part in the work of the MHCC?* The mission is clear: to promote mental health in Canada, to change the attitudes of Canadians towards mental health problems and mental illness, and to work with stakeholders to improve mental health services and supports. The task is huge, but the status quo is unacceptable.

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Résumé

Comprendre les connaissances essentielles dans le cadre de la pratique infirmière : les apprentissages tirés d'une étude portant sur l'application des connaissances

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Issu d'une étude consacrée à l'application des connaissances (AC) sur la transition des patients de l'hôpital au domicile, cet article se penche sur les apprentissages relatifs aux défis liés à l'application des connaissances essentielles tirées de la recherche en milieux infirmiers. Les auteures se penchent sur le discours actuel afférent à l'application des connaissances, discutent de leurs positions concernant la nature des connaissances critiques et présentent des thèmes tirés du corpus de leur recherche, notamment des connaissances appliquées. Les résultats de l'étude offrent certaines possibilités quant à l'encadrement de futures recherches en matière d'AC portant sur le recensement des connaissances essentielles liées à la pratique infirmière.

Mots clés : application des connaissances, connaissances essentielles, pratique infirmière

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Uptake of Critical Knowledge in Nursing Practice: Lessons Learned From a Knowledge Translation Study

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This article is based on a knowledge translation (KT) study of the transition of patients from hospital to home. It focuses on the lessons learned about the challenges of translating research-derived critical knowledge in practice settings. The authors situate the article in current discourses about KT; discuss their understanding of the nature of critical knowledge; and present themes from their body of research, which comprises the knowledge that was translated. The findings have the potential to guide future KT research that focuses on the uptake of critical knowledge in nursing practice.

Keywords: knowledge translation, critical knowledge, integrated knowledge, health-care delivery, nursing practice, postcolonial, Black feminist epistemologies

Introduction

Knowledge translation (KT) with the goal of guiding nursing practice is now a key objective in nursing research. Since its founding, the Canadian Institutes of Health Research, Canada's premier government funding agency for health research, has stressed its commitment to the creation of new knowledge and the translation of this knowledge into practice and policy (Canadian Institutes of Health Research, 2000). The discipline of nursing shares this commitment, and has made major advances in KT science within the past 10 years. *CJNR*'s focus issue on Knowledge Translation in the Health Sciences in 2008 demonstrates the range of approaches to KT. The articles in that issue, some of which were intended to "challenge readers to think outside of their usual comfort zones" (Estabrooks, 2008, p. 13), open up a discursive space for philosophic and empirical inquiry into existing approaches to KT, the substance of the knowledge to be translated, and what counts as evidence to inform nursing practice (e.g., Kavanagh, Stevens, Seers, Sidani, & Watt-Watson, 2008; Poole, 2008).

Following upon the work of these scholars, in this article we engage with the nature of the knowledge that informs nursing practice within the genre of critical, postcolonial, and Black feminist epistemologies and how this "critical" knowledge[1] is translated into practice. We do so by drawing on a recently completed KT study of patient transition from hospital to home (Anderson et al., 2008, 2009; Browne et al., 2009; Reimer-Kirkham et al., 2009). This article focuses on selected findings on lessons learned about the processes and challenges of translating critical knowledge in the practice setting. We begin by situating our study in the KT discourse. We then present an overview of the KT study, including strategies for engaging with KT in the practice setting. Next, we focus on the nature of critical knowledge and three key themes from our body of work and the extant literature — the knowledge for translation. Finally, we present our findings, which highlight the challenges and the lessons learned.

Literature Review

Moving research-derived evidence into practice has concerned health professionals, administrators, policy-makers, and researchers alike for some time (Estabrooks, 2007). In the past decade, KT has been widely adopted, a development that stems from several influences. Pragmatically, it has been recognized that the practice-research gap has persisted after decades of evidence-based medicine (Graham et al., 2006) and that multidimensional exchange processes are required for knowledge-to-action (Rycroft-Malone, 2007). Also, philosophic limitations of the evidence-based practice movement have been identified, such as epistemological concerns about the kinds of knowledge relied upon (Reimer-Kirkham, Baumbusch, Schultz, & Anderson, 2007). KT offers expanded conceptions of the nature of evidence; acknowledgement of context-sensitive knowledge; and multilevel engagement with practitioners, decision-makers, and organizations (Reimer-Kirkham et al., 2009).

In an era of constrained resources, shortened hospitals stays have become commonplace. The transition from hospital to home has been identified as a critical juncture during which nursing interventions can make a significant difference to patient outcomes, including the prevention or delay of hospital readmission through evidence-informed organization of discharge processes and patient education (Dedhia et al., 2009; Parkes & Sheppard, 2004). While not all patients are at risk during this transition, factors such as advanced age, frailty, lack of social support,

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[1] We explain later in the article what we mean by "critical" knowledge.

and language barriers make some people particularly vulnerable (Graham, Ivey, & Neuhauser, 2009). The matter of transition from hospital to home therefore requires knowledge generation and translation for interventions that contribute to a smooth continuum of care with improved patient outcomes.

Overview of the Knowledge Translation Study

Purposes of the Study

The purposes were to synthesize knowledge from studies on the help-seeking and hospitalization experiences of ethno-culturally diverse patients, including Aboriginal peoples, Canadian-born non-Aboriginal people, and people who came to Canada as immigrants and refugees; translate this knowledge into practice; and evaluate the outcomes.[2] These purposes were explored by focusing on a critical health-care juncture: the transition from hospital to home. Our intent was to use this case to advance the theory of KT, to refine our theoretical insights into the nature of critical knowledge, and to foster understanding of how to promote the uptake of critical knowledge to enhance nursing practice.

Strategies for Engaging With Knowledge Translation in Practice

This KT study was conducted in four inpatient units of a large teaching hospital in a western Canadian city from September 2005 to October 2007. The study marked the culmination of several years of collaborative research among university researchers, administrators in the hospital setting, and practising clinicians. During the project we established additional relationships, specifically among the two doctoral nursing students (DNSs) who were employed as graduate research assistants, unit-specific nursing leaders, and point-of-care nursing staff from the units. The DNSs were immersed in the units for a period of 8 to 10 hours per week, one over 12 months and the other over 18 months. During this time they engaged with practitioners for the purpose of translating knowledge into practice. The key processes for translating knowledge were: (1) establishing collaborative relationships built on the principles of accountability, reciprocity, and respect; (2) developing and implementing specific projects ("action plans") related to the transition from hospital to home; and (3) engaging in responsive dialogue with practitioners to foster reflective practice (Anderson et al., 2008). These processes derive from a collaborative KT model[3] (Baumbusch et al., 2008) developed earlier in our

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[2] This article focuses on a particular aspect of the study. Other aspects are discussed elsewhere (Anderson et al., 2009; Browne et al., 2009; Reimer-Kirkham et al., 2009).

[3] The study on which this model was based, Hospitalization and Help-Seeking Experiences of Diverse Ethnocultural Populations, was funded by the Canadian Institutes of Health Research.

program of research emphasizing the concepts of respect, reciprocity, and accountability. We also drew on concepts from the extant KT literature regarding "just in time teaching" and "credible messengers" to deliver "actionable messages" in the workplace (Canadian Health Services Research Foundation, 2002; Lavis et al., 2003). The DNSs, both experienced nurse clinicians, were ideally positioned as "credible messengers" in the four units, based on their strong clinical knowledge and their understanding of the specific research methodologies used in this project. We now present the knowledge we intended to translate into practice through implementation of these KT strategies.

Knowledge to Be Translated: The Nature of Critical Knowledge

Simultaneously with building on existing practice-academic relationships, negotiating which hospital units would participate in the KT study, and identifying practice champions, an early task in the implementation of the project was to synthesize the concepts from our body of work "into 'practice-ready' knowledge" (Anderson et al., 2008, 2009, p. 284). Informed by critical inquiry — critical feminist theory, Black feminist epistemology, postcolonial and decolonizing theories, and critical race theory — we refer to this knowledge as critical knowledge[4] (Reimer-Kirkham et al., 2009).

We conceptualize critical knowledge as constructed through methods of critical inquiry and as fostering an understanding of historical, political, economic, and other social processes that can be drawn on as explanatory resources as we engage with patients in promoting health and ameliorating the suffering of illness. Critical knowledge is both social and reflexive in nature, prompting us to question our assumptions, the status quo, and the taken-for-granted. It is linked to praxis as the dialectical relationship among knowledge, theory, research, and action. Among its outcomes are equity and critical social justice[5] in health and health-care delivery. The concept of *intersectionality* is pivotal to our understanding of critical

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[4] The preceding list of theoretical perspectives is not meant to be exclusive to the development of critical knowledge. These are the theoretical perspectives on which we have drawn. Critical knowledge is not incompatible with "contextual knowledge" (Anderson et al., 2009). In Anderson et al. (2009), which is written within a global health context, we use "contextual" to mean knowledge that is "constructed at the intersection of different layers of contexts" and that "informs us of how the social is embodied in individual experience" (p. 287). The KT project and the knowledges derived from our programs of research were used as "a springboard for examining the kinds of knowledge and critical engagement that might move us towards social justice as a global priority" (p. 285).

[5] Critical interpretations of social justice address issues of equity; conceptualize health as a human right; and draw attention to issues of racialization, culturalism, and discrimination as factors constraining social justice (Browne & Tarlier, 2008).

knowledge. Intersectionality refers to the ways in which class, race, gender, age, and other dimensions associated with inequities operate simultaneously and as interlocking systems (Brewer, 1993; Collins, 2000). Weber and Parra-Medina (2003) state that research incorporating intersectionality "is particularly well-suited to addressing the question of disparities in our social worlds" (p. 185).

Given the diverse populations with whom we have conducted research, the concept of *culture* is central to our work. From a critical perspective, culture is conceptualized as dynamic and as involving "processes and practices constantly occurring within power-laden social contexts and locations to create fluid, contested, negotiable, ambiguous meanings" (Dorazio-Migliore, Migliore, & Anderson, 2005, p. 344). The concept of "cultural safety," located within postcolonial, critical theorizing, aligns with our conceptualization of culture. Introduced by Maori nurse leaders in New Zealand, cultural safety orients the education and practices of health professionals to a critical understanding of the impact of colonialism and related historical inequities and the structural underpinnings of current health and social inequities (Ramsden, 1991, 1993). Cultural safety, as a way of framing knowledge, prompts critical reflection on issues of equity and critical social justice in nursing practice (Browne et al., 2009); the nurse's own positioning (with respect to class, "race," and economic status) in relation to patients; and how these social relations operate to shape nursing and health-care practice (Smye & Browne, 2002). This theoretical orientation to critical knowledge, in which our conceptualizations of culture and cultural safety are embedded, has informed our programs of research and, subsequently, the themes of our research (the "knowledge" for "translation"), which we aimed to translate in practice.

We did not undertake a secondary analysis of our research data to identify the themes. Rather, we drew on salient findings from our published and unpublished work and from the extant literature related to our main concern — patient transitions from hospital to home and the social experiences that shape these transitions. We now present a synopsis of three *themes* from our body of work and the extant literature that formed the knowledge for translation.

Transitions and the Material Context of People's Lives

There is compelling evidence from our research over two decades that the socio-economic, historical contexts of people's lives have considerable influence on their experiences of health, illness, and help-seeking (e.g., Anderson, Blue, & Lau, 1991; Anderson et al., 2003; Browne, 2007; Lynam et al., 2003; Perry, Lynam, & Anderson, 2006). These findings align with a body of knowledge developed in Canada and in other countries regarding inequities and their impact on people's health through the intersecting factors of poverty, economic inequality, and social exclusion, especially for racialized groups (Beiser & Stewart, 2005; Marmot, 2004; Raphael, 2007). For example, historical and current social, political, and economic inequities shape the health and social status of Aboriginal peoples in Canada, resulting in a disproportionate burden of ill health and social suffering (Adelson, 2005). Research evidence shows how both implicit and explicit discriminatory practices and policies continue to marginalize Aboriginal peoples within the health-care system (e.g., Browne, 2007; Dion Stout, Kipling, & Stout, 2001; Tang & Browne, 2008).

Though rooted in different historical contexts, recent statistics point to the income gap between Canadian-born and foreign-born men and women. Immigrant women are at a particular disadvantage (Statistics Canada, 2008). The evidence shows that it is the income gap between high- and low-income groups that counts; a wide income gap has dire morbidity and mortality consequences for those in the lower income group (see, for example, Marmot, 2004; Raphael, 2007) and hence is an important factor to look at as we examine issues of equity in health-care delivery systems. Low income, especially when combined with social isolation and marginalization, places people at greater risk for poor health and can significantly hamper their ability to manage an illness after they are discharged from hospital (Lynam et al., 2003; Perry et al., 2006). These findings demonstrate how social factors such as race, class, and gender *intersect to produce inequities* that subsequently influence health. Yet these determinants of health and health-care experiences are often not fully understood in practice, with health professionals drawing on unexamined assumptions about culture, "race," and other factors.

Racializing and Marginalizing Practices and How They Can Be Addressed

By critically reflecting on the themes from our collective work, we determined how health professionals' frequent reliance on culturalist discourses[6] created unintentional racializing practices based on assumptions that patients' behavioural characteristics result from their presumed race or culture (Browne, 2007; Reimer-Kirkham, 2003). Such discourses and assumptions do not originate in the psyches of particular nurses; rather, they reflect social discourses about groups of people who are assumed to be different from the norm and often have a powerful influence on health professionals' practices concerning different groups of patients.

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[6] By "culturalist" we mean notions of culture as a homogeneous attribute of a particular "race" — for example, "Aboriginal," "Indo-Canadian," "Chinese," or "White" people.

These discourses were therefore pivotal in our knowledge synthesis. We began to focus our attention on how to address them and what would constitute equitable and socially just health care. Critical interpretations of social justice[7] gave coherence to our collective work because they "address issues of equity vs. equality; conceptualize health as a human right . . . [and] draw attention to racialization, cultural devaluing and discrimination as factors constraining social justice" (Browne & Tarlier, 2008, p. 84).

Along with the principle of critical social justice, our work has focused on the concept of equity: Resources ought to be distributed according to people's needs. Equity links directly to the social determinants of health, as outlined in a Canadian Nurses Association (2005) document that underscores the need for nurses to understand how these determinants work and how to incorporate this understanding into their assessments and their choices for practice. But it is not only material context and racializing practices that exert an influence on people's lives; the structure of health-care delivery systems can also contribute to inequities.

Health-Care Delivery Systems Through the Lens of Critical Inquiry

The ongoing effects of health-care restructuring provided a salient context to our KT work — particularly the unintended consequences of restructuring (Lynam et al., 2003). For example, shorter hospital stays, although welcomed by many with adequate resources at their disposal, created hardships for those without the resources needed to assume the added responsibility in the home. Though resources were being put in place to facilitate the transition from hospital to home, there were wide gaps in the continuity of services (Lynam et al., 2003; Perry et al., 2006), including patients and families inadequately prepared to manage self-care, lacking adequate information to assess the severity of complications, and/or experiencing a time lag between discharge and follow-up by the community-care team. The reorganization of practice settings also had implications for the context in which nurses practised and the care that they were able to provide (see Varcoe & Rodney, 2009).

To summarize, a fundamental premise in our research was that the translation of this knowledge into practice would make a unique contribution to nurses' assessments and interventions. The process of translating this knowledge into practice, however, was not linear. Through engagement with one another and with clinical partners, we came to see that the project had a dialectic, non-linear nature. The lessons about the processes of knowledge synthesis and translation were learned concur-

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[7] The topic of social justice is explored more fully in Anderson et al. (2009).

rently as we examined and reflected upon the contextual co-construction of knowledge and the grounding of complex concepts in everyday nursing practice.

Findings: Challenges and Lessons Learned

In reflecting on this KT study and what might be considered "findings," we focus on several of the key conceptual and methodological challenges and opportunities encountered when attempting to translate critical knowledge in practice settings.

Congruence Between Translation Methodologies and Knowledge for Translation

While it is true that different kinds of knowledge inform nursing practice, in the KT process we may unwittingly attempt to use the same methodologies for translating different kinds of knowledge. The plan was for the "messengers," two DNSs conversant with the body of knowledge to be translated and with the underpinnings of critical inquiry, to draw upon this knowledge as they engaged with health professionals, and for cultural safety to be integrated into nursing practice through engagement around patients' transition from hospital to home. In the initial framing of the study, we foregrounded the use of actionable messages, as explicated in the extant literature, as one KT strategy for the translation of this knowledge. However, in enacting our study we struggled to write actionable messages from critically oriented knowledge, which requires critical thinking and reflexivity. This struggle prompted us to ask, what is an actionable message from the perspective of critical knowledge? As we reflected on actionable messages, we came to understand that the type of KT in which we were engaged was an "effort to foster understanding, reflection and action" (Reimer-Kirkham et al., 2007, p. 36), so that knowledge, underpinned by the principles of equity and social justice and refracted through the lens of cultural safety, could be co-created and incorporated into practice. This did not mean that we fully understood how this would be done when actionable messages were the starting point of the dialogue. For example, a review of the notes from the various meetings of our research team showed clearly that we grappled with both the explication of the "K" for translation and the crafting of methods suitable for translating the "K."

Turning a concept such as racialization into an actionable message that could be translated in practice was particularly challenging. This dilemma is reflected in a document we created on actionable messages based on the themes identified in our research studies. We concluded that racialization was not an actionable message but, instead, the knowledge base on which actionable messages could be formulated:

> *The art of translation is to invoke the knowledge in ways that would not demean or belittle the nurses, but rather, help them to reflect on other ways of constructing the patient. . . . So the art of translation will be to guide practitioners to critically examine how they make decisions (process) and at the same time, draw on knowledge that challenges racialized categories (content) without using words such as racialization, which may be very difficult to explain.* [Extract from document on "Actionable Messages"]

At this early stage in our research it became apparent that the notion of actionable messages did not fit with the complexity of the knowledge we were interested in translating; that is, we recognized the epistemological tensions between the kinds of knowledge for translation and the translation strategies that we had initially proposed (Reimer-Kirkham et al., 2009). Furthermore, we eventually came to question what we understood by "just in time teaching." "Just in time" could be read either as a reductionist approach to what we felt others "needed to know" in that moment or as authentic dialogue where we would engage with nurses according to the concerns they were addressing; that is, "just in time" could be the priorities that nurses identify in the immediate context of clinical practice. Further, the emphasis on teaching in this phrase could imply a one-way, expert-to-novice flow of knowledge, whereas our intent was to engage in dialogue to prompt reflection on the assumptions that shape nurses' approaches to practice with a view to considering how they influence clinical decision-making.

We subsequently reframed our KT strategies to make them more congruent with the critical knowledges to be translated and with our KT model (Baumbusch et al., 2008). This model embraced the opening up of a dialogic space to invite critical reflection on the assumptions that underpin practice and the *co-construction of knowledge* in context. This approach seemed congruent with fostering critical social justice in the clinic. For example, during dialogue sessions where the investigators and DNSs used case studies to draw out assumptions underpinning practice, concepts such as cultural safety and the influence of practice environments were effective in creating spaces for nurses to engage with critical social justice concepts and reflect on their own "positionalities" in relation to patients. Our engagement in these processes with nurses fostered a deeper awareness of the need for congruence between the kinds of knowledge for translation on the one hand and the methodologies for KT on the other. This understanding is one of the key lessons learned from the KT study.

Approaches to Translating Politically Charged Concepts

A key objective of the project was to translate knowledge to prompt frontline health professionals and administrators to reflect critically on their assumptions about patients using the concept of cultural safety. Specifically, we envisaged that cultural safety might be used to help nurses examine how popularized notions of culture and cultural differences shape assumptions and stereotypes in the context of practice, to examine the interrelated problems of culturalism and racialization, and to see how organizational and structural inequities within health care and in society influence nurses' interpretive perspectives and practices (Browne et al., 2009). Given the complexities inherent in attempting to translate such politically charged concepts, we needed to consider how to engage with nurses in ways that would be relevant to their practice. For example, we were particularly cognizant of the lessons learned from New Zealand, where attempts to directly discuss the issues highlighted by cultural safety (such as the colonization of indigenous peoples and the appropriation of their land and culture — the genesis of poverty and poor health) were met with resistance and defensiveness in many of the nursing and education sectors (Ramdsen, 2002). Equally importantly, KT strategies needed to be relevant to the structure and organization of the practice context in which nurses work.

The current framework of acute-care practice on the units where we conducted the study means that nurses and managers are often oriented towards clinical guidelines, pathways, and assessment tools that support efficient and effective practice in increasingly pressured work environments. In the case of the study, a priority for the manager and physicians on one of the units was the development of a clinical pathway to guide the discharge planning process. The development of this tool emerged as a priority area for "action" and became the fulcrum around which the DNSs and members of the investigative team engaged. The DNSs were able to incorporate questions to prompt nurses to consider patients' social contexts as they engaged in discharge planning. Critical knowledge enhanced the development of such tools and linkages between nurses' everyday activities, management priorities, and the kinds of critically oriented knowledge that could increase effectiveness and thus influence the outcomes of nurses' practice.

The reframing of KT strategies in "windows of opportunity" in the context of everyday practice also creates possibilities for observing their impact over time. For example, critically oriented knowledge that underpins the concept of cultural safety could increase nurses' knowledge about why certain patients are readmitted so soon after discharge. In the process, nurses may be more apt to expand their assessment to explore the intersecting social, gendered, and personal factors and circumstances that create differential burdens of hardship during the transition from hospital to home. Such assessments, and the nursing interventions they might prompt, could result in fewer complications following hospitalization and in lower readmission rates, eliminating the often "hidden" readmissions. Outcomes from the integration of critical knowledge into nursing practice could thus be observable and measurable, and we encourage further research to this end.

Working the Intersections for Integrated Knowledge

We found that the integration of critical knowledge into a clinical pathway provided a rich opportunity to theorize about the possibilities of paradigm shifts that could move us beyond dichotomous, either/or thinking. This example is helpful in explicating the dialectic between biomedical knowledge and the critical knowledge that illuminates the social context of a patient's life. The treatment of knowledges not as distinct and dichotomous but as intersecting and simultaneous makes it possible to *shift the epistemological and paradigmatic framing of knowledge for nursing practice.* This shift towards intersectionality of knowledges parallels methodological approaches that call for intersections between measurement and critical qualitative inquiry, to provide a comprehensive, integrated understanding of phenomena (e.g., of measurable income disparities, the set of historical relations that position people in particular ways, and the intersections with help-seeking experiences). Critical qualitative inquiry does not supplant measurement, or vice versa; in fact, critical inquiry is constitutive of both quantitative and qualitative methods. In a similar vein, critical knowledge does not supplant biomedical knowledge; rather, it intersects with biomedical, managerial, and clinical knowledge (Anderson et al., 2009) *to produce intersectional, simultaneous knowledge for clinical practice,* thus shifting the vocabulary from "different kinds of knowledge" to "integrated knowledge" for practice. In this conceptualization, no form of knowledge is devalued or privileged; each intersects with the other. This means that *critical knowledge* would be an *integral part* of integrated knowledge for competent, effective, and hence efficient nursing practice and would not be held up as distinct.

Sustainable Knowledge Translation

This study was based on long-term relationships among administrators, clinicians, and researchers. Yet, as a funded research study, it was conducted within a specific time frame. This meant that the relationships we had established in the practice setting had to come to an end, raising questions about the sustainability of the KT process. While sustainability might be fostered by champions in the practice setting, or by ongoing collaborative programs of research between the academy and practice, clinical settings are dynamic and the need for KT is continual and evolving; and yet research programs focused on translating evidence-based knowledge inevitably come to an end.

As we have argued elsewhere (Anderson et al., 2009), sustainable KT requires ongoing commitments between the clinical and academic contexts that are not built solely on episodic KT studies. This continuity is all the more important when translating knowledge that requires the questioning of assumptions that are deeply rooted in histories, political processes, and dominant discourses. Such assumptions and discourses do not change overnight, yet questioning them is crucial if we are to provide health care that is both *effective* and *efficient.* For this reason there needs to be ongoing engagement with nurses and practice leaders so that they will see the relevance of integrated knowledge for their work and begin to make the subtle shifts in practice that can occur when one's epistemological and ontological perspectives align with critically oriented knowledge. The sustainability of the KT process and its implementation in relation to nursing practice therefore become more relevant. But nursing practice takes place within the context of organizational structures that can foster or hinder the uptake of critical knowledge.

We therefore need to engage administrative personnel to ensure that KT occurs at all levels of the organization; we also need to examine the structural arrangements between academic and practice settings that might foster KT sustainability. KT processes that have such far-reaching consequences cannot be directed solely at the individual level of nursing practice; they require commitment by those in a position to bring about organizational change. These multilevel approaches call for dialogue and engagement between the academy and practice in ways that will address the structural/contextual issues and knowledge for nursing practice that we have sought to explicate.

Concluding Comments

In this article we have highlighted four lessons learned from our study on translating critical knowledge in the practice context — lessons that can be drawn upon in KT research that focuses on the uptake of critical knowledge in practice. We have highlighted the importance of congruence between research-derived critical knowledges and translation methodologies. We have argued that the reflexive process is key to the integration of critical knowledge into nursing practice, and we have examined the politics and pragmatics that underpin the translation of such knowledge. We have suggested that critical knowledge does not stand on its own but, rather, needs to be integrated, with other knowledges, into the flow of competent nursing practice. Consistent with the epistemological underpinnings of a critical perspective, working the intersections between different kinds of knowledges is key to effective nursing practice. Finally, the translation of critical knowledge into practice cannot occur at the level of individual nursing practice alone. We have concluded that KT must take place at all levels of the organization. It is crucial, therefore, that we re-examine the structural arrangements between academic and practice settings and that we develop new approaches to fostering sustainability in KT.

References

Adelson, N. (2005). The embodiment of inequity: Health disparities in Aboriginal Canada. *Canadian Journal of Public Health, 96*(2), S45–S61.

Anderson, J. M., Blue, C., & Lau, A. (1991). Women's perspectives on chronic illness: Ethnicity, ideology and restructuring of life. *Social Science and Medicine, 33*(2), 101–113.

Anderson, J. M., Browne, A. J., Lynam, J. M., Reimer-Kirkham, S., Rodney, P., Semeniuk, P., et al. (2008). *Executive summary. Cultural safety and knowledge uptake in clinical settings: A model for practice for culturally diverse populations (2005–2008).* Retrieved June 30, 2010, from http://hdl.handle.net/2429/26058.

Anderson, J. M., Perry, J., Blue, C., Browne, A., Henderson, A., Khan, K. B., et al. (2003). "Rewriting" cultural safety within the postcolonial and postnational feminist project: Toward new epistemologies of healing. *Advances in Nursing Science, 26*(3), 196–214.

Anderson, J. M., Rodney, P., Reimer-Kirkham, S., Browne, A. J., Khan, K. B., & Lynam, M. J. (2009). Inequities in health and health care viewed through the ethical lens of critical social justice: Contextual knowledge for the global priorities ahead. *Advances in Nursing Science, 32*(4), 282–294.

Baumbusch, J., Reimer-Kirkham, S., Khan, K. B., McDonald, H., Semeniuk, P., Tan, E., et al. (2008). Pursuing common agendas: A collaborative model for knowledge translation between research and practice in clinical settings. *Research in Nursing and Health, 31,* 130–140.

Beiser, M., & Stewart, M. (2005). Reducing health disparities: A priority for Canada. *Canadian Journal of Public Health, 96*(2), S4–S7.

Brewer, R. (1993). Theorizing race, class and gender: The new scholarship of Black feminist intellectuals and Black women's labour. In S. M. James & A. P. A. Busia (Eds.), *Theorizing Black feminisms: The visionary pragmatism of Black women* (pp.13–30). London and New York: Routledge.

Browne, A. J. (2007). Clinical encounters between nurses and First Nations women in a western Canadian hospital. *Social Science and Medicine, 64*(10), 2165–2176.

Browne, A. J., & Tarlier, D. (2008). Examining the potential of nurse practitioners from a critical social justice perspective. *Nursing Inquiry, 15*(2), 83–93.

Browne, A. J., Varcoe, C., Smye, V., Reimer-Kirkham, S., Lynam, M. J., & Wong, S. (2009). Cultural safety and the challenges of translating critically oriented knowledge in practice. *Nursing Philosophy, 10,* 167–179.

Canadian Health Services Research Foundation. (2002). *Knowledge transfer in health.* Conference report. Calgary: Author. Retrieved March 7, 2009, from http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf.

Canadian Institutes of Health Research. (2000). *The CIHR Act.* Ottawa: Author. Retrieved September 25, 2008, from http://www.cihr-irsc.gc.ca/e/22948.html.

Canadian Nurses Association. (2005). *Social determinants of health and nursing: A summary of the issues.* Ottawa: Author. Retrieved March 26, 2008, from http://www.cna-aiic.ca/CNA/documents/pdf/publications/BG8_Social_Determinants_e.pdf.

Collins, P. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment.* London and New York: Routledge.

Dedhia, P., Kravet, S., Bulger, J., Hinson, T., Sridharan, A., Kolodner, I. K., et al. (2009). A quality improvement intervention to facilitate the transition of older adults from three hospitals back to their homes. *Journal of the American Geriatric Society*, *57*(9), 1540–1546.

Dion Stout, M., Kipling, G. D., & Stout, R. (2001). *Aboriginal Women's Health Research Synthesis Project: Final report.* Ottawa: Centres of Excellence for Women's Health.

Dorazio-Migliore, M., Migliore, S., & Anderson, J. M. (2005). Crafting a praxis-oriented culture concept in the health disciplines: Conundrums and possibilities. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine, 9*(3), 339–360.

Estabrooks, C. A. (2007). A program of research in knowledge translation. *Nursing Research, 56*(4S), S4–S6.

Estabrooks, C. A. (2008). Renegotiating the social contract? The emergence of knowledge translation science. *Canadian Journal of Nursing Research, 40*(2), 11–15.

Graham, C. L., Ivey, S. L., & Neuhauser, L. (2009). From hospital to home: Assessing the transitional care needs of vulnerable seniors. *Gerontologist, 49*(1), 23–33.

Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., et al. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, *26*(1), 13–24.

Kavanagh, T., Stevens, B., Seers, K., Sidani, S., & Watt-Watson, J. (2008). Examining appreciative inquiry as a knowledge translation intervention in pain management. *Canadian Journal of Nursing Research, 40*(2), 40–56.

Lavis, J. N., Robertson, D., Woodside, J. M., Mcleod, C. B., Abelson, J., & Knowledge Transfer Study Group. (2003). How can research organizations more effectively transfer research knowledge to decision makers? *Milbank Quarterly, 81*(2), 221–248.

Lynam, M. J., Henderson, A., Browne, A., Smye, V., Semeniuk, P., Blue, C., et al. (2003). Healthcare restructuring with a view to equity and efficiency:

Reflections on unintended consequences. *Canadian Journal of Nursing Leadership, 16*(1), 112–140.

Marmot, M. (2004). Social causes of social inequalities in health. In S. Anand, F. Peter, & A. Sen (Eds.), *Public health, ethics, and equity* (pp. 37–61). Oxford: Oxford University Press.

Parkes, J., & Sheppard, S. (2004). Discharge planning from hospital to home. *Cochrane Database Systematic Reviews,* (4), CD000313.

Perry, J., Lynam, M. J., & Anderson, J. M. (2006). Resisting vulnerability: The experiences of families who have kin in hospital — a feminist ethnography. *International Journal of Nursing Studies, 43*(2), 173–184.

Poole, N. (2008). Using consciousness-raising principles to inform modern knowledge translation practices in women's health. *Canadian Journal of Nursing Research*, *40*(2), 76–93.

Ramsden, I. (1991). *Kawa Whakaruruhau: Cultural safety in nursing education in Aotearoa.* Wellington: Nursing Council of New Zealand.

Ramsden, I. (1993). Cultural safety in nursing education in Aotearoa (New Zealand). *Nursing Praxis in New Zealand, 8*(3), 4–19.

Ramsden, I. (2002) *Cultural safety and nursing education in Aotearoa and Te Waipounamu.* Wellington: University of Wellington.

Raphael, D. (2007). *Poverty and policy in Canada: Implications for health and quality of life.* Toronto: Canadian Scholars' Press.

Reimer-Kirkham, S. (2003). The politics of belonging and intercultural health care. *Western Journal of Nursing Research, 25*(7), 762–780.

Reimer-Kirkham, S., Baumbusch, J., Schultz, A. S. H., & Anderson, J. M. (2007). Knowledge development and evidence-based practice: Insights and opportunities from a postcolonial feminist perspective for transformative nursing practice. *Advances in Nursing Science, 30*(1), 26–40.

Reimer-Kirkham, S., Varcoe, C., Browne, A. J., Lynam, M. J., Khan, K., & McDonald, H. (2009). Critical inquiry and knowledge translation: Exploring compatibilities and tensions. *Nursing Philosophy, 10,* 152–166.

Rycroft-Malone, J. (2007). Theory and knowledge translation: Setting some coordinates. *Nursing Research, 56*(4S), S78–S85.

Smye, V., & Browne A. J. (2002). "Cultural safety" and the analysis of health policy affecting Aboriginal people. *Nurse Researcher: International Journal of Research Methodology in Nursing and Health Care, 9*(3), 42–56.

Statistics Canada. (2008). *Earnings and incomes of Canadians over the past quarter century, 2006 Census*. Catalogue 97-563-X. Ottawa: Author.

Tang, S. Y., & Browne, A. J. (2008). "Race" matters: Racialization and egalitarian discourses involving Aboriginal people in the Canadian health care context. *Ethnicity and Health, 13*(2), 109–127.

Varcoe, C., & Rodney, P. (2009) Constrained agency: The social structure of nurses' work. In B. S. Bolaria & H. Dickinson (Eds.), *Health, illness, and health care in Canada* (4th ed.) (pp. 122–150). Toronto: Harcourt Brace.

Weber, L., & Parra-Medina, D. (2003). Intersectionality and women's health: Charting a path to eliminating health disparities. *Advances in Gender Research, 7,* 181–230.

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Résumé

Les problèmes de santé physique chez les personnes atteintes de schizophrénie au Canada : une recension critique de la littérature

Debora Isane R. Kirschbaum Nitkin, Denise Gastaldo

Les auteures présentent une recension critique de la littérature issue de chercheurs canadiens et portant sur les comorbidités médicales, et recommandent certaines ressources et stratégies pour l'évaluation et la gestion de problèmes de santé physique chez les personnes atteintes de schizophrénie. La littérature scientifique sur ce thème se résume à neuf articles de recherche originaux et six recensions de littérature, ce qui indique une rareté d'études dans ce domaine au Canada. Selon les recherches examinées, le diabète, l'obésité, les maladies cardiaques et l'abus de substances constituent les comorbidités les plus fréquentes chez les personnes souffrant de schizophrénie. Un autre constat qui découle de ces recherches est le fait que la plupart des chercheurs font face à des obstacles méthodologiques quant à la généralisation des résultats, en raison de limites sur le plan de la conception ou de caractéristiques présentes dans l'échantillonnage. Les auteures soulignent la nécessité d'intensifier la recherche pour mieux comprendre les rôles que jouent le traitement, les caractéristiques individuelles, le mode de vie et les problématiques structurelles dans le développement de comorbidités chez les personnes atteintes de schizophrénie. Elles discutent également de l'importance de traiter de ces questions dans le cadre de la pratique et de l'éducation en sciences infirmières.

Mots clés : schizophrénie, comorbidité

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Addressing Physical Health Problems Experienced by People With Schizophrenia in Canada: A Critical Literature Review

Debora Isane R. Kirschbaum Nitkin,
Denise Gastaldo

The authors present a critical review of the literature produced by Canadian researchers regarding medical co-morbidities and the resources and strategies they recommend for assessing and managing the physical health problems of people with schizophrenia. Scientific production in the field consists of 9 original research articles and 6 literature reviews, revealing a dearth of studies in this area in Canada. The studies examined show that diabetes, obesity, heart disease, and substance abuse are the most frequent co-morbidities affecting people with schizophrenia. Another finding is that most researchers are challenged methodologically to generalize results due to limitations in design or sample characteristics. The authors point to the need for more research to better understand the role of treatment, individual characteristics, lifestyle, and structural issues in the development of co-morbidities among people with schizophrenia. They also discuss the importance of addressing these topics in nursing practice and education.

Keywords: schizophrenia, psychotic disorders, mental health, co-morbidity, psychiatric nursing

Introduction

Presently in Canada and internationally, mental health professionals who provide care for people with schizophrenia are expected to deal not only with the complex issues related to their clients' social rehabilitation but also with their physical health (World Health Organization [WHO], 2003). However, research has shown that people with schizophrenia are more likely to present with physical health problems than the general population (Millar, 2008) and that their life expectancy in Canada is 10 to 15 years shorter than that of the general population (Cohn & Sernyak, 2006; Goeere et al., 1999). Poverty, high prevalence of substance abuse, metabolic syndrome, diabetes, cardiovascular disease, and obesity, as well as barriers to health-care access, make people with schizophrenia a highly vulnerable group (Villares & Sartorius, 2003; WHO, 2003).

In the health-care system, several limitations regarding treatment and support for this group have been identified. For instance, family physicians and general practitioners lack the preparation needed to assess and follow up on the clinical needs of those with schizophrenia, while psychiatrists tend to underestimate patients' physical complaints and consequently underdiagnose their physical health problems (Marder et al., 2004; Vilares & Sartorius, 2003). Nurses, on the other hand, tend to undervalue clinical physical care in mental health settings and to overlook patients' physical health needs (Muir-Cochrane, 2006). This situation applies internationally, including in wealthy countries with universal access to health care such as Canada and the United Kingdom, resulting in increased patient vulnerability (Forchuk et al., 2007; Forchuk, Brown, Schofield, & Jensen, 2008; Goering, 2000; Mulvale, Abelson, & Goering, 2007).

Although in Canada there is significant interest in meeting clients' needs in a more comprehensive manner (Kirby, 2006), the system's integration is insufficient to ensure quality care, with some exceptions (Kates, Craven, Crustolo, Nikolaou, & Allen, 1997). Therefore, there are few well-established programs or services to provide simultaneous care for psychiatric symptoms and physical problems (Chue, 2004; Cohn & Sernyak, 2006).

Finally, in the international and Canadian scientific literature, there is a scarcity of studies in disciplines such as nursing, psychiatry, and public health that identify the physical health problems of people with schizophrenia and the barriers to offering them quality and integrated health care (Millar, 2008; Muir-Cochrane, 2006). In this article we review the Canadian literature on physical health problems among people with schizophrenia, hereafter called co-morbidity, and discuss the implications of such literature for the care provided by the Canadian health-care system.

We believe that in order to offer effective and good-quality health care, as well as to enhance quality of life and life expectancy for people with schizophrenia, mental health teams — particularly nurses working at different levels within the health-care system — should be aware of physical co-morbidity among schizophrenic clients and be better prepared to identify symptoms and formulate strategies to ensure adequate treatment. Since nurses, either as practitioners or as case managers, have an important role to play in supporting clients' management of everyday issues, we argue that addressing the impact of physical health problems on clients' lives is at the centre of quality care in nursing.

The aim of this critical literature review is to examine what Canadian researchers concerned with this discussion (Archie et al., 2007; Caron et al., 2006; Cohn, Prud'homme, Streiner, Kameh, & Remington, 2004;

Coodim, 2001; Curkendall, Mo, Glasser, Stang, & Jones, 2004; Eastabrook et al., 2003; Faukner, Cohn, Remington, & Hyacinth, 2007; Goldberg & Van Exan, 2008; Voruganti et al., 2007) have studied regarding medical co-morbidities, and what resources and strategies they consider necessary in order to assess and manage the physical health problems of people with schizophrenia.

Methodology

We searched the Cumulative Index for Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (Medline), and PsychINFO databases through Scholars Portal using the keywords schizophrenia, psychosis, severe mental illness, co-morbidity, medical problems, physical health, concurrent diseases, and Canada (country of publication or country of origin) from 1996 (when the first study on the morbidity and mortality of people with schizophrenia was published by Goeree et al. [1999]) to 2008, in English, French, and Spanish. We found 88 articles published in peer-reviewed journals. Of these, 76 abstracts or titles were excluded because they focused on psychiatric co-morbidity (e.g., anxiety, mood, and depression); genetics; elders; children and young populations; or exclusively on psychiatric symptoms of schizophrenia, diabetes, and trials of the action mechanisms of antipsychotic medication.

Our research criterion was studies involving original research or a literature review about medical co-morbidity or concurrent disorders in adult clients (18–65 years) living with schizophrenia in Canada. We identified 14 abstracts. Of these, six were excluded after a full text reading because they focused on the development of research instruments or technical procedures. Due to the limited number of articles on the subject, we expanded our search using Google Scholar. Four more publications were found: three original research articles and one literature review. Two of the original research articles and the literature review were included in the sample. The third original research article was excluded because it did not meet the inclusion criterion. An additional search for publications was conducted using the surnames of the authors of the articles selected as well as the references of these articles, but the results were the same as those of the database searches.

The 15 articles selected were divided into two groups: original research articles (nine) and literature reviews (six). The articles were summarized and classified by author, year of publication, journal, aim, methodology, main findings, conclusions, and recommendations. We conducted a thematic content analysis of the articles' findings, conclusions, and recommendations, and in this review we present a synthesis of these articles in a critical narrative style. Finally, information from the grey literature, such as government and research reports, was included as secondary data to support and define the context of the studies described. The analysis is presented under the following themes: challenges to the study of co-morbidities; Canadian original studies on co-morbidities, which include studies about coronary heart disease, diabetes, obesity, and substance abuse; and Canadian literature reviews on co-morbidities.

Results

Challenges to the Study of Co-morbidities

This literature review contributes to the debate on co-morbidities in schizophrenia because it systematizes knowledge that is difficult to locate. There is a vast diversity of terms and keywords used to describe physical health problems that affect people with schizophrenia, in both the international and the Canadian literature. For instance, the following terms are used to describe the presence of more than one disease affecting the same patient: co-morbidity, dual diagnosis, concurrent disorders, dual disorders, co-occurring disorders, and medical problems.

The use of such terminology also varies according to region. While the terms medical problem and dual diagnosis are commonly used by authors in Europe and the United States, the terms co-morbidity and concurrent disorders are more often used by Canadian authors to describe the presence of substance abuse and schizophrenia as well as the co-existence of schizophrenia and other medical conditions (e.g., diabetes, heart disease, and metabolic syndrome). Yet, while the term dual diagnosis is frequently used in the US and South American literature on schizophrenia and substance abuse, it is employed in the Canadian province of Ontario when referring to people with developmental disabilities and psychiatric disorders (Centre for Addiction and Mental Health [CAMH], Canadian Mental Health Association, & Ontario Mental Health Foundation, 2005; Health Canada, 2002).

In Ontario the term co-morbidity is often used in research that explores physical disease, since co-morbid disorder is a medical term describing the presence of more than one significant health problem (CAMH et al., 2005), whereas the term concurrent disorders is used when referring to the presence of substance abuse and mental disorders, which include mood disorders, anxiety, and depression, as well as schizophrenia. For this reason, a search for diseases that affect people with schizophrenia using any of these terms instead of medical co-morbidity is unlikely to capture studies related to physical health problems, with the exception of substance abuse.

Canadian Original Studies on Co-morbidities

In spite of the recognition that physical health deterioration among people with schizophrenia is a serious problem in Canada (CAMH et al., 2005; Kirby, 2006), our literature review shows that research on medical co-morbidity is scarce.

The main concern of original research is to investigate the prevalence and characteristics of different co-morbidities. Research published in Canada between 1996 and 2008 predominantly examines the high prevalence of metabolic syndrome and its relation to increased risk for coronary heart disease, diabetes, dysglycemia, weight gain in long-term patients, and high rates of substance abuse among people with schizophrenia (Archie et al., 2007; Caron et al., 2006; Cohn et al., 2004; Coodim, 2001; Curkendall et al., 2004; Eastabrook et al., 2003; Faukner, Cohn, Remington, & Hyacinth, 2007; Goldberg & Van Exan, 2008; Voruganti et al., 2007).

Coronary heart disease. The prevalence and characteristics of risk factors for coronary heart disease (CHD) are examined in two studies with inpatient and outpatient samples in the provinces of Ontario and Saskatchewan (Cohn et al., 2004; Curkendall et al., 2004). Although they used different methodologies, both studies found increased risk for CHD among patients with schizophrenia compared to the general population. Cohn et al. (2004) examined CHD risk in people with chronic schizophrenia using a sample of hospital-based inpatients and outpatients. Their goal was to examine the prevalence and to characterize such risk in patients with chronic schizophrenia and schizoaffective disorder. They compared the prediction of risk in a group of 240 patients to a national sample based on data from the Canadian Heart Health Survey. Cohn et al. also compared rates of metabolic syndrome to currently known rates in the US adult population. Their findings reveal a higher prevalence of obesity, smoking, increased fasting triglycerides, and reduced HDL levels among patients with severe mental illness of both genders compared to the reference population. They also demonstrate that inpatients and outpatients with schizophrenia and schizoaffective disorder are at increased risk for CHD. They report a similar tendency in relation to metabolic syndrome, since the risk of CHD increased significantly as the condition became associated with a high prevalence of cigarette smoking.

Curkendall et al. (2004) examined the incidence and prevalence of cardiovascular disease and mortality in outpatients and compared these to the rates for the general population. Their data were obtained through a retrospective cohort study that included all patients diagnosed with schizophrenia in 1994 and 1995 in Saskatchewan, according to the province's health database. The population studied was composed of clients of mental health service providers in Saskatchewan, equally distributed between men and women, with a median age of 47 years. The authors conclude that people with schizophrenia are more likely to have a history of cardiovascular and pulmonary disease than the general population. Patients diagnosed with schizophrenia showed higher rates of conditions such as arrhythmia, syncope, heart failure, stroke, and diabetes. Curkendall et al. also found an increased risk of mortality from all causes, as well as cardiovascular mortality. Finally, they conclude that patients with schizophrenia have an increased burden of cardiovascular co-morbidities and mortality. They point out a need for additional studies to clarify whether these conditions are determined by unhealthy lifestyle, are a result of the "social disadvantages of schizophrenia," or are the natural history of the psychiatric disease. Therefore, consistent with the international literature, both studies conclude that people with schizophrenia have a greater risk for cardiovascular morbidity and mortality than the general population.

Diabetes. Voruganti et al. (2007) examined the prevalence of this disturbance in a sample of patients receiving treatment for schizophrenia within a community-based mental health program in southern Ontario, through a research project that reviewed health records. They describe increased rates of dyslypidemia and under-recognition of diabetes among people with schizophrenia. The patients had a long history of schizophrenia or schizoaffective disorder (mean duration 20.08±10.08 years) and 78.9% of them were being treated with second-generation antipsychotics. Furthermore, 3.5% of the participants presented a known history of type 2 diabetes mellitus and 22.8% reported the presence of other chronic co-morbid physical disorders. The researchers found a lack of uniformity in screening procedures for diabetes and other metabolic disorders as well as in risk factors in data-collection practices within the psychiatric care settings studied. They noticed that while 3.5% of this population was already diagnosed with and being treated for diabetes, a significant number of clients in the sample were not yet formally diagnosed as having dysglycemia or diabetes. Within this group, 12.2% were dysglycemic, with a fasting plasma glucose (FPG) at the pre-diabetes level (5.6–6.9 mmol/l), while 31% presented an FPG in the diabetes range (≥ 7 mmol/l). Moreover, among the sample receiving treatment for schizophrenia, 43.2% had evidence of either diabetes or pre-diabetes, and the prevalence rates were significantly higher than the corresponding regional rates reported for the general population.

Voruganti et al. (2007) believe that the dysglycemia reported in this sample might be associated with several non-modifiable and modifiable factors. Among the non-modifiable factors, they identify family history, ethnicity, and older age. As modifiable risk factors, they cite low physical activity, increased weight and body mass index, and independent living status. The risk factors for diabetes documented in this research were similar to those observed in prior studies, including older age, non-European ethnicity, and family history of diabetes, implying that there are few reasons to propose the adoption of preventive strategies. The authors also report that they did not find a link between dysglycemia and type of antipsychotic drug used. They attribute this finding to population characteristics, since the sample was composed of people with long-term illness who had used both first- and second-generation antipsychotic drugs over the years. Like other authors (Coodim, 2001), Voruganti et al. recognize that such "findings suggest that the pathophysiology of schizophrenia-diabetes co-morbidity is far more complex than originally speculated" (in prior research) (p. 219).

Obesity. Coodim (2001) examined whether the risk of being overweight or obese was higher among people with schizophrenia than among the general population. He obtained the weight and height measures of a sample of 189 patients attending a treatment and education program at a university teaching hospital in the province of Manitoba. The findings indicate a significant difference between the sample and the general population. In the sample, 26.7% had a body mass index in the acceptable range, while 48% of Canadians and 43% of Manitobans had an appropriate weight-to-height ratio. The prevalence of obesity in the sample was about 42%, or 3.5 times the Canadian average (12%). Moreover, among those classified as obese in the sample, 11% could be considered morbidly obese and therefore at high risk for premature death. Based on these findings and a subsequent analysis based on sex, Coodim also concludes that women with schizophrenia are more prone to develop obesity than men with schizophrenia.

In Ontario, Faukner, Cohn, and Remington (2007) studied the relationship between quality of life and measures of body weight. They found significantly higher rates of increased adiposity (5.08), which resulted in limited physical functioning among patients and restricted everyday activities due to physical health problems. Based on this finding, they recommend preventing or treating weight gain among people with schizophrenia as a strategy for improving physical health and quality of life. However, they found no correlation between body weight measures and quality of life related to emotional or mental health. They recommend further research to examine this gap and to determine whether weight-management interventions have an indirect impact on mental health.

Substance abuse. The use and abuse of substances among clients with schizophrenia was the aim of three of the studies reviewed (Eastabrook et al., 2003; Goldberg & Van Exan, 2008; Margolese, Malchy, Negrete, Tempier, & Gill, 2004). All of them conducted surveys with randomized samples.

Margolese et al. (2004) developed an investigation with outpatients attending continuing psychiatric services at the Montreal General Hospital with the aim of characterizing substance use and abuse and psychiatric symptoms among a population of patients meeting DSM-IV diagnostic criteria for schizophrenia or related psychoses (schizoaffective, delusional disorder, psychosis). In their sample of 207 patients, the authors found that 55.1% presented a single diagnosis (SD), while 44.9% had a dual diagnosis (DD) — that is, both schizophrenia or a related psychosis and substance abuse. These findings are similar to those of previous research in Australia, Europe, and the United States. Yet Margolese et al. obtained lower rates of current substance abuse/dependence (14% of the entire sample). They attribute this finding to a different criterion used to define current abuse (the last month, rather than the last 6 months as in other studies). Corroborating the results of other studies, Margolese et al. found that the most frequently abused substances in their sample were nicotine (65.2%) and alcohol (47.3%) and that 20% of the participants had used at least one drug of abuse (one of the previously mentioned drugs) within the previous 30 days. Among the patients with DD, 68.8% presented lifetime substance abuse, while 31.2% met the criteria for diagnosis as having a current substance abuse disorder. The authors observed a greater presence of positive and depressive symptoms and greater vulnerability to using more than one drug among those who were nicotine-dependent than among the SD group. They also noticed that current DD patients showed different rates of non-compliance with medication, which suggests a direct implication of current substance use — for instance, cigarette smoking and its role in increasing positive symptoms of schizophrenia.

Eastabrook et al. (2003) focused on substance abuse among clients of four Assertive Community Treatment (ACT) teams in southeastern Ontario using data from a larger investigation of ACT outcomes. The research goal was to report on the rates of alcohol, drug, and tobacco use among ACT clients. The authors found alcohol and drug abuse rates to be lower in the sample than those reported in the international literature for persons with mental illness and no higher than that reported for the general adult population in Ontario. They attribute these findings to specific sample characteristics, since the sample consisted of individuals from a semi-rural region who had a history of long-term institutionalization. Both of these factors have been associated with lower rates of substance abuse in previous international research.

Eastabrook et al. (2003) emphasize the importance of monitoring prevalence rates and patterns over time as the sociodemographics of the

ACT population and the community change. Their findings on cigarette smoking show much higher smoking rates for the sample than for the general adult population in Canada. The authors also explain that smoking may harm the physical health and economic sustainability of individuals with schizophrenia in the community.

Like Margolese et al. (2004), Eastabrook et al. (2003) attribute the study's limitations to a lack of information on the prevalence of substance abuse among Canadians with severe mental illness, especially among ACT clients, and also to the type of methodology employed.

In the third study, Goldberg and Van Exan (2008) used a longitudinal research design to examine the changes in smoking status over 10 years among a group of patients who attended a well-established community-based psychiatric rehabilitation program in Hamilton, Ontario. The authors were interested in clarifying whether the rates of smoking change in patients with schizophrenia over time, given the lack of prospective longitudinal studies applied to this population and considering that prevalence rates decreased significantly among the general population in the same decade. They found lower rates than those reported in the international literature. Goldberg and Van Exan report that smoking rates among people with schizophrenia tended to follow the reduction in smoking observed in the Canadian population between 1995 and 2005. They also noticed a large decrease in the use of first-generation antipsychotic medication between 1995 and 2005, followed by an expressive increase in the use of atypical antipsychotic drugs beginning in 2006. However, they found no correlation between changes in smoking status and type of antipsychotic medication used. They conclude that a switch to a different antipsychotic medication by itself cannot be associated with smoking cessation. Still, according to the authors, the effects of societal restrictions, intensive community management, and educative programs played a significant role in changes in smoking status.

Canadian Literature Reviews on Co-morbidities

The Canadian literature reviews on physical health problems affecting people with schizophrenia (Chue, 2004; Cohn & Sernyak, 2006; Faukner, Cohn, & Remington, 2007; Jobe & Harrow, 2005; Newcomer & Haupt, 2006; Poulin, Cortese, Williams, Wine, & McIntyre, 2005) provide an overview of the authors' concerns and gaps in the literature on physical co-morbidities. These reviews point to gaps in the areas of metabolic disturbances in relation to their onset, prescription of atypical anti-psychotics, and recognition of risk factors for coronary heart disease. Factors involving weight gain and effective interventions for its prevention and treatment are also explored. However, the main feature of the Canadian literature is its interest in offering guidelines for assessing, monitoring, and managing medical co-morbidities.

Of six articles (Chue, 2004; Cohn & Sernyak, 2006; Faukner, Cohn, & Remington, 2007; Jobe & Harrow, 2005; Newcomer & Haupt, 2006; Poulin et al., 2005), three examine a significant body of international literature related to the hypothesis that some anti-psychotic medication may be associated with increased risk for weight gain, type 2 diabetes, insulin resistance, hyperglycemia, and dyslipidemia (Chue, 2004; Cohn & Sernyak, 2006; Newcomer & Haupt, 2006). The articles found that, in general, all anti-psychotic medications are related to changes in body weight, but that some are more associated with this symptom than others. For instance, patients who used amisulpride, ziprasidone, and aripiprazole showed less weight gain than those who used clozapine and olanzapine (Cohn & Sernyak, 2006; Faukner, Cohn, & Remington, 2007; Newcomer & Haupt, 2006).

All of these studies refer to the need to clarify the various mechanisms by which such effects are produced. For example, although there is evidence indicating that patients presented with diabetes more frequently when they took olanzapine and clozapine than when they took other atypical anti-psychotics, it is unclear whether that condition resulted from intrinsic liability differences within these medications (Poulin et al., 2005). It also remains unknown which mechanisms contribute to the increase in type 2 diabetes among those who take antipsychotic drugs and who is more likely to be at risk for developing diabetes (Poulin et al., 2005).

These authors highlight the need for clinicians to adopt structured and systematic procedures for the early detection of metabolic disturbances among clients taking antipsychotic medication. However, they observe that these interventions are possible only if mental health professionals recognize the need for and assume responsibility for monitoring clients or clearly defining to whom to delegate the laboratorial and clinical evaluation of metabolic disturbances, despite the lack of financial resources to address patients' physical needs, particularly in community mental health facilities. Another element acknowledged by these authors is the de-medicalization of psychiatry, which left most psychiatrists uncomfortable taking a leadership role in clinical areas where they "may feel that they are no longer sufficiently knowledgeable" (Cohn & Sernyak, 2006, p. 499).

For these reasons, the authors encourage mental health professionals to change the status quo by dealing with the resources available at the local level. They emphasize that if this goal is to be achieved, psychiatrists will have to collaborate with family physicians, dietitians, occupational therapists, and diabetes specialists. It is also worth noting that of the six articles, only one (Cohn & Sernyak, 2006) mentions problems related to the delivery of mental health care, the organization of health services, and professional education as barriers, while the other five refer exclusively to individual and local issues, as if professionals and centres could meet the complex challenges of continuity of mental health care at the municipal and provincial levels.

Finally, there is consensus that it is unacceptable to not monitor patient medical issues under the assumption that mental health professionals are not prepared to do so. While acknowledging that there are several limitations in our current knowledge on this issue, these authors recommend the adoption of guidelines for assessing, monitoring, and managing more appropriate patient follow-up (Cohn & Sernyak, 2006; Faukner, Cohn, & Remington, 2007; Poulin et al., 2005).

Discussion

The study was designed to provide a more comprehensive view of how physical health problems affect people living with schizophrenia in Canada. This critical literature review has shown that medical co-morbidities in schizophrenia is a theme seldom addressed by Canadian researchers and that, given the diverse terminology used to describe this phenomenon, it is difficult to identify such literature through database searches. One of the limitations of the study is the possibility that we missed articles that did not use keywords commonly employed in the English-language literature.

Researchers refer to several factors that may explain the scarcity of studies in the face of consensus on the relevance of this theme. In methodological terms, most of the authors refer to methodological limitations, such as inadequate sample size to produce generalizable findings, and design problems, such as the use of different methods and/or instruments for assessing similar populations.

The studies report correlations between schizophrenia and risk factors for pathologies such as cardiovascular disease, diabetes, obesity, and substance abuse, and they conclude that people with schizophrenia are more affected by these morbidities than the general population. However, researchers have not been able to determine whether the high prevalence of such diseases is caused by lifestyle, the natural history of the disease, or side effects of the pharmacological treatments adopted.

Given the lack of definitive answers, authors argue that the studies did not support the adoption of prescriptive educative or preventive interventions for risk factors related to coronary heart disease or diabetes

(Faukner, Cohn, & Remington, 2007). Nonetheless, some authors cite the importance of assessing and monitoring patients with schizophrenia as a strategy for early detection of physical problems (Chue, 2004; Cohn et al., 2004; Goldberg & Van Exan, 2008).

We propose moving into the realm of clinical qualitative research to study clients' perceptions of different therapeutic regimes, contrasting groups of patients using different medications, and their assessment of physical symptoms. Another means of producing clinically relevant information might be to conduct case studies of how people with schizophrenia manage their co-morbidities in everyday life, exploring implications for health promotion and disease prevention.

Despite limited evidence supporting nursing interventions in this area, we propose that, based on the articles reviewed, there are several practices that could be adopted to enhance the quality of patient care. We also propose some more general strategies based on professional standards of practice and ethical principles that could act in synergy with evidence-based practices (see Table 1) (Canadian Nurses Association, 2003, 2007).

Table 1 *Enhanced Nursing Practice for People Living With Schizophrenia*

Individual and Collective Nursing Practices Derived From Scientific Publications
• Routinely assess and monitor for symptoms of the most prevalent risk factors and diseases. • Support active living and physical activity and prevent substance abuse — or, when not possible to prevent, promote harm-reduction strategies. • Educate at the undergraduate and graduate levels, as well as in continuing education in work settings, to ensure competent clinical assessment of co-morbidities.
Individual and Collective Nursing Practices Derived From Professional Standards and Ethical Principles
• Educate/support patients in navigating the health-care system for physical care. • Propose interventions that take into account clients' special needs, mainly regarding diet, housekeeping, and budget management. • Participate in shared care with psychiatrists, family physicians, and general practitioners. • Advocate on behalf of patients for quality and comprehensive care. • In partnership with other professionals, critically analyze structural conditions that disadvantage patients in accessing quality care and quality living conditions and propose alternatives.

We believe that nurses, through associations and professional groups, should collectively promote education- and practice-based changes in order to better serve patients living with schizophrenia in Canada. At the same time, we believe that more nurses should engage in research in this field, to increase information regarding nursing care and support.

The Cartesian mind-body division, which is still heavily enmeshed in nursing education and the education systems of most health disciplines, is clearly insufficient to prepare professionals to address the complexities of care for patients living with schizophrenia. More specifically, this division acts as a barrier to the delivery of high-quality care, given that it perpetuates the separation between psychiatry and mental health (mind issues) and "clinical subjects" (usually represented in the study of physical pathologies).

With respect to the health-care system, it is alarming that, of the articles reviewed, only Cohn et al. (2004) refer to the lack of an integrated health-care system as a barrier to the implementation of comprehensive care. Other studies refer to individual professionals, such as psychiatrists and general practitioners, as responsible for finding solutions. The same kind of individual analysis is used to describe patients' weight gain, poor diet, and physical inactivity as lifestyle choices rather than as consequences of structural conditions they may not be able to control. Lifestyle could also be considered a symptom — a social one — of living with schizophrenia. Such alternative understandings can help to challenge interventions that are built on the assumptions of patients' agency and ability to provide self-care.

Despite the limited contribution Canadian studies can offer so far, they do show clearly that professionals are inadequately prepared to address co-morbidities, health-care practices that neglect physical disease, the organization of health-care systems that further disadvantage this vulnerable population, and customary social services related to housing, food, and support systems. We recommend that more studies be conducted. Some could use larger samples to address the correlation of disease, risk factors, and medication use, while ethnographies and case studies could contribute to our understanding of the highly contextual experiences of care and access to treatment. The study of successful experiences of comprehensive care could also contribute valuable information to the Canadian health-care system as a whole.

References

Archie, S., Goldberg, J., Akhtar-Danesh, N., Landeen, J., McColl, L., & McNiven, J. (2007). Psychotic disorders, eating habits, and physical activity: Who is ready for lifestyle changes? *Psychiatric services, 58*(2), 233–239.

Caron, J., Corbier, M., Mercier, C., Diaz, P., Ricard, N., & Lesage, A. (2006). The construct validity of the client questionnaire of the Wisconsin Quality of Life Index — a cross-validation study. *International Journal of Methods in Psychiatric Research, 12*(3), 128–138.

Canadian Nurses Association. (2003). *Position statement on patient safety.* Retrieved October 12, 2009, from http://www.cna-aiic.ca/CNA/documents/pdf/publications/PS70_Patient-Safety_en.pdf.

Canadian Nurses Association. (2007). *Framework for the practice of registered nurses in Canada.* Retrieved October 12, 2009, from http://www.cna-aiic.ca/CNA/documents/pdf/publications/RN_Framework_Practice_2007_e.pdf.

Centre for Addiction and Mental Health, Canadian Mental Health Association, & Ontario Mental Health Foundation. (2005). *Making a difference: Ontario's Community Mental Health Evaluation Initiative.* Toronto: Author.

Chue, P. (2004). The assessment and management of antipsychotic-associated metabolic disturbances from a psychiatric perspective. *Canadian Journal of Psychiatry, 49*(3), 200–207.

Cohn, T., Prud'homme, D., Streiner, D., Kameh, H., & Remington, G. (2004). Characterizing coronary heart disease risk in chronic schizophrenia: High prevalence of the metabolic syndrome. *Canadian Journal of Psychiatry, 49*(11), 753–760.

Cohn, T., & Sernyak, M.J. (2006). Metabolic monitoring for patients treated with antipsychotic medications. *Canadian Journal of Psychiatry, 51*(8), 492–501.

Coodim, S. (2001). Body mass index in persons with schizophrenia. *Canadian Journal of Psychiatry, 46*(6), 549–555.

Curkendall, S., Mo, J., Glasser, D., Stang, M. R., & Jones, J. K. (2004). Cardiovascular disease in patients with schizophrenia in Saskatchewan, Canada. *Journal Clinical Psychiatry, 65*(5), 715–720.

Eastabrook, S., Krupa, T., Salinda, H, Gerber, G., Grant, R., Mayo, M., et al. (2003). Substance abuse in a Canadian population of Assertive Community Treatment (ACT) clients: Implications for service planning and delivery. *Canadian Journal of Nursing Research, 35*(1), 44–51.

Faukner, G., Cohn, T., & Remington, G. (2007). Interventions to reduce weight gain in schizophrenia. *Schizophrenia Bulletin, 33*(3), 654–656.

Faukner, G., Cohn, T., Remington, G., & Hyacinth, I. (2007). Body mass index, waist circumference and quality of life in individuals with schizophrenia. *Schizophrenia Research, 90,* 174–178.

Forchuk, C., Brown, S. A., Schofield, R., & Jensen, E. (2008). Perceptions of health and health service utilization among homeless and housed psychiatric consumer/survivors. *Journal of Psychiatric and Mental Health Nursing, 15*(5), 399–407.

Forchuk, C., Jensen, E., Csiernik, R., Gorlick, C., & Ray, S. L., Berman, H., et al. (2007). Diversity and homelessness: Minorities and psychiatric survivors. *Canadian Journal of Nursing Research, 39*(3), 191–193.

Goeree, R., O'Brien, B. J., Goering, P., Blackhouse, G., Agro, K., Rhodes, A., et al. (1999). The economic burden of schizophrenia in Canada. *Canadian Journal of Psychiatry, 44,* 464–472.

Goering, P., Wasilenki, D., & Durbin, J. (2000). Canada's mental health system. *International Journal of Law and Psychiatry, 23*(3/4), 345–359.

Goldberg, J., & Van Exan, J. (2008). Longitudinal rates of smoking in a schizophrenia sample. *Tobacco Control, 17,* 271–275.

Health Canada. (2002). *Best practices: Concurrent mental health and substance use disorders.* Catalogue #H39-599/2001-2E. Ottawa: Minister of Public Works and Government Services Canada.

Jobe, T. H., & Harrow, M. (2005). Long-term outcome of patients with schizophrenia: A review. *Canadian Journal of Psychiatry, 50*(14), 892–900.

Kates, N., Craven, M., Crustolo, A., Nikolaou, L., & Allen, C. (1997). Integrating mental health services within primary care: A Canadian program. *General Hospital Psychiatry, 19,* 324–332.

Kirby, M. J. L. (Ed.). (2006). *Out of the shadows at last — transforming mental health, mental illness and addiction services in Canada.* Ottawa: Standing Senate Committee on Social Affairs, Science and Technology.

Marder, S. R., Essock, S. M., Miller, A. L., Buchanan, R. W., Casey, D. E., Davis, J. M., et al. (2004). Physical health monitoring of patients with schizophrenia. *American Journal of Psychiatry, 16*(8), 1334–1349.

Margolese, H. C., Malchy, L., Negrete, J. C., Tempier, R., & Gill, K. (2004). Drug and alcohol use among patients with schizophrenia and related psychoses: Levels and consequences. *Schizophrenia Research, 67*(2), 157–166.

Millar, H. (2008). Management of physical health in schizophrenia: A stepping stone to treatment success. *European Neuropsychopharmacology, 18,* 121–128.

Muir-Cochrane, E. (2006). Medical co-morbidity risk factors and barriers to care for people with schizophrenia. *Journal of Psychiatric and Mental Health Nursing, 13,* 447–452.

Mulvale, G., Abelson, J., & Goering, P. (2007). Mental health service delivery in Ontario, Canada: How do policy legacies shape prospects for reform? *Health Economics, Policy and Law, 2,* 363–389.

Newcomer, J., & Haupt, D. (2006). The metabolic effects of antipsychotic medication. *Canadian Journal of Psychiatry, 51*(8), 480–490.

Poulin, M. J., Cortese, L., Williams, R., Wine, N., & McIntyre, R. S. (2005). Atypical antipsychotics in psychiatric practice: Practical implications for clinical monitoring. *Canadian Journal of Psychiatry, 50*(9), 555–562.

Vilares, C. C., & Sartorius, N. (2003). Challenging the stigma of schizophrenia. *Revista Brasileira de Psiquiatria, 25*(1), 1–2.

Voruganti, L. P., Punthakee, Z., Van Lieshout, R. J., MacCrimmon, D., Parker, G., Awad, A. G., et al. (2007). Dysglycemia in a community sample of people treated for schizophrenia: The Diabetes in Schizophrenia in Central-south Ontario (DiSCO) study. *Schizophrenia Research, 96,* 215–222.

World Health Organization. (2003). *Organization of services for mental health.* Geneva: Author. Available online: http://www.ccmhi.ca/en/products/toolkits/documents/EN_CompanionToolkitforChildrenandAdolescents.pdiihttp://www.statcan.ca/Daily/English/030903/d030903a.htm.

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Book Review

Educating Nurses: A Call for Radical Transformation

Patricia Benner, Molly Sutphen, Victoria Leonard, Lisa Day
San Francisco: Jossey-Bass, 2009, 288 pp.
ISBN 978-0-470-45796-2

Reviewed by Madeleine Buck

Many authors have suggested that, in response to the skills that nurses require to meet the needs of society and the health-care system, nursing education must be transformed. Benner, Sutphen, Leonard, and Day go a step further and call for "urgent and radical transformation" of how nurses are educated and how nursing educators are prepared for their teaching role. Benner et al. analyze the results of the Carnegie National Nursing Education study, conducted in 2006, and share their interpretations, insights, and worries in a well-organized and logically flowing book. Fortunately, they also propose solutions in this "must read" for any nurse educator, nursing dean, or health-care administrator. True to Benner's style, vivid examples provide meaningful context to the analysis of the study's somewhat depressing findings. The authors are not afraid to share their blunt conclusions, using statements like "as observers, we too were distressed at the approach to teaching . . ." They pointedly state that "in short, the answer is no" to the question "Are nurses entering practice equipped with the knowledge and skills for today's practice and prepared to continue clinical learning for tomorrow's nursing?"

With a cursory acknowledgement that nursing academia has made strides in the past several years, the authors share their less than positive analysis of the findings of this research study of US nursing education programs involving site visits to nine institutions and three national surveys of faculty and students. Benner et al. caution against the fragmentation of nursing education that arises from the sharp separation of classroom and clinical teaching, conclude that nursing curricula tend to be weak in the natural and social sciences as well as in technology and the humanities, and cite the inadequacy of formal teacher preparation to meet the needs of nursing education today. While the study was conducted in the United States, many nurse educators will be able to identify with the vivid examples offered, especially when the challenges of providing quality clinical education are discussed.

Recommendations for radical transformation are plenty. They include: raising entry standards in areas such as science preparation for RN-to-baccalaureate transition programs; increasing the number of direct entry master's programs in nursing; instituting a high-quality postgraduate residency of at least 1 year for all nursing graduates; increasing the emphasis on the integration of knowledge, clinical reasoning, skilled know-how, and ethical comportment; and minimizing horizontal violence against nursing students. Nurse educators are encouraged to abandon the sharp separation of clinical and classroom teaching in favour of the integration of classroom and clinical teaching in order to strengthen connections between the acquisition and use of knowledge. They are also urged to use "pedagogies of inquiry," whereby students learn to develop the skills necessary to answer clinical questions using the literature, information systems, databases, and the like; to adopt teaching strategies such as situated cognition and thinking in action; and to shift the emphasis from critical thinking to clinical reasoning and multiple ways of thinking that include critical thinking.

The best aspects of *Educating Nurses* are four in number. First, the book acknowledges the complexity of nursing education and will dispel any notion that educating a nurse is a simple matter. Second, the authors provide lovely "paradigm cases" to illustrate the work of exemplary teachers. These model cases offer hope and are likely to motivate any nursing instructor to deconstruct his or her teaching approach in order to improve its quality. Third, the book will bring solace to those nurse educators who have been struggling to develop their students' skills in clinical reasoning, critical thinking, and sense of moral agency, as opposed to "covering content," as in an additive curriculum where it is assumed that if important material is "covered," then thinking will necessarily follow (Ironside, 2004). The final "best" aspect of *Educating Nurses* is its succinct and provocative 26-item "agenda" for improving nursing education at the program level. While not all of the items will apply to every country, the recommendations on the entry and pathways to nursing, the student population, the student experience, teaching, entry to practice, and national oversight — including accreditation — provide direction that is clearly visionary.

Given that this book was my summer holiday reading, I wish I had read the paradigm cases first. As a nurse educator of several years' standing, I have been well aware of the challenges, gaps, and possibilities that lie before us, and *Educating Nurses* confirms in black and white that we have a long way to go. I worry that if "non-nurses" read the book they will wonder what we've been doing in nursing education to get this far in the face of so many gaps. So, as I prepare for my nursing courses this fall I have decided to get rid of half of my PowerPoint presentations (a strong recommendation in the book) and am learning to use narrative pedagogy!

References

Ironside, P. (2004). "Covering content" and teaching thinking: Deconstructing the additive curriculum. *Journal of Nursing Education, 43*(1), 5–12.

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