Résumé

La traduction des connaissances, dans le contexte de la santé autochtone

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Dans la littérature conventionnelle portant sur la santé, on remarque un intérêt croissant en ce qui a trait au concept de traduction des connaissances (TC), l'un des nombreux termes utilisés pour décrire le(s) processus de conversion des connaissances en interventions. Malgré les besoins pressants, peu d'efforts ont été faits pour se pencher sur les implications des théories et des stratégies en évolution, en lien avec la TC en contexte autochtone. Les auteurs tentent de réduire l'écart en étudiant la documentation portant sur la TC autochtones et en explorant des façons d'élargir la portée de ce travail en se penchant sur la littérature de recherche traitant de santé autochtone et sur la documentation traitant de TC. Selon eux, l'inclusion de perspectives multiples et l'étude du contexte social et politique dans lequel la TC autochtones évolue constituent des éléments importants quant à l'élaboration conceptuelle de la TC autochtones. Cet article intéressera notamment les intervenants qui œuvrent à l'interface de la pratique infirmière et des efforts pour améliorer la santé de cette population.

Mots clés : traduction des connaissances, autochtone, santé, recherche

Knowledge Translation in the Context of Aboriginal Health

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Interest in the concept of knowledge translation (KT), one of the many terms used to describe the process(es) through which knowledge is transformed into action, is increasingly prevalent in the mainstream health literature. Despite a pressing need, little has been done to address the implications of evolving theories and strategies for KT in an Aboriginal context. The authors attempt to narrow the gap by reviewing the literature on Aboriginal KT and exploring ways to extend this work by engaging with the Aboriginal health research literature and the KT literature. They argue that the inclusion of multiple perspectives and an examination of the social and political context in which Aboriginal KT takes shape are important for the conceptual development of Aboriginal KT. This article is particularly relevant for those involved at the interface between nursing practice and efforts to improve Aboriginal health.

Keywords: knowledge translation, knowledge exchange, knowledge transfer, Aboriginal, health, research

Introduction

The literature on health research and policy documents a growing "gap between what is known and what gets done in practice" (Pablos-Mendez & Shademani, 2006). The existence of a "know–do gap," a term coined by the World Health Organization (2006), is a serious concern because it points to the unrealized potential of evidence-based knowledge to improve the health of populations (Davis et al., 2003). Thus, understanding how knowledge is, can, or should be translated into practice has become the focus of an emerging body of literature generally known as knowledge translation (KT). The goal of KT in health contexts is the utilization of knowledge gained through research to positively influence individual and community health (Canadian Institutes of Health Research [CIHR], 2004). Knowledge translation is of interest to the nursing research community, central aspects of which are the development of knowledge for the discipline itself and the application of this knowledge in nursing practice (http://cjnr.mcgill.ca/about.html).

Despite increased attention to KT in many of the health disciplines, little time has been invested in examining the relevance and impact of the evolving KT discourse for Aboriginal health. This is surprising considering that the health disparities and health inequities experienced

by Aboriginal populations in Canada are well documented (Adelson, 2005). The limited literature that does address KT in an Aboriginal context highlights the need for further exploration of this complex area (Hanson & Smylie, 2006; Kaplan-Myrth & Smylie, 2006; Martin, Macaulay, McComber, Moore, & Wien, 2006; Ranford & Warry, 2006; Smylie et al., 2003; Wien, 2006).

The aim of this article is not to develop a model for KT in Aboriginal contexts but to encourage discussion in this regard by examining three key questions: What is KT? Why is KT, in the context of Aboriginal health, an important component of the KT debate? What is unique about KT with regard to Aboriginal health?

These questions will be addressed by reviewing the literature on Aboriginal KT and engaging with the related Aboriginal health research literature and mainstream KT literature. The article will be relevant for those involved at the interface between nursing practice and efforts to improve Aboriginal health. Equally important, the knowledge gained by elucidating the emerging ideas about Aboriginal KT will inform our understanding and practice of KT in non-Aboriginal contexts and thus contribute to efforts aimed at improving health and well-being both nationally and globally.

What Is Knowledge Translation?

KT has received such an enormous amount of attention in the health research and policy literature that it is often considered a buzzword in the field (Cochrane Musculoskeletal Group, 2007). Increased attention and interest in the topic is also indicated by a rise in the number of relevant publications: from fewer than 100 articles in 1990 to several thousand by February 2006 (Cordeiro, Kilgour, Liman, & Jarvis-Selinger, 2007). Ironically, the simple question What is knowledge translation? remains unanswered. For example, KT is one of many terms used to describe the process(es) through which knowledge is transformed into strategic action. In fact, a study by Graham et al. (2006) identified a total of 33 terms that have been used synonymously. Some of the most common are knowledge transfer, knowledge exchange, dissemination, and research utilization. Consequently, the majority of the literature debates the appropriateness of these terms and their definitions, as well as the models and methods that have been developed to examine the connections between research, policy, and practice domains (Estabrooks, Thompson, Lovely, & Hofmeyer, 2006; Landry, Amara, & Lamari, 2001; Lavis, Lomas, Hamid, & Sewankambod, 2006; Lavis, Robertson, Woodside, McLeod, & Abelson, 2003).

Against this background, the following Canadian Institutes of Health Research (CIHR) definition of KT is recognized both nationally and internationally and is often used as a baseline definition (Cordeiro et al., 2007):

> The exchange, synthesis and ethically-sound application of knowledge — within a complex system of interactions among researchers and users — to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened health care system. (CIHR, 2004)

Because of the popularity of this term, and in the interests of clarity and consistency, the term knowledge translation will be used throughout this article in discussing the knowledge-to-action interface.

Why Study Aboriginal Knowledge Translation?

As discussed above, KT has been the subject of increased attention in the general health literature but has received comparatively little attention in Aboriginal health contexts. While this is reason enough to study KT in Aboriginal health contexts, an even more compelling reason is the disproportionate burden of ill health borne by Aboriginal populations relative to the general population of Canada.

The health disparities and inequities experienced by Aboriginal peoples have been documented in the academic literature (Adelson, 2005; Waldram, Herring, & Young, 2007) and the "grey" literature (Indian and Northern Affairs Canada, 1996; Romanow, 2002). These disparities have led authors to liken Aboriginal peoples in Canada to "developing societies within [a] developed nation" (Epstein, 1982). Knowledge and documentation of the disparate health conditions of Aboriginal peoples cause one to ask why evidence of ill health in Aboriginal communities is not leading to improved health outcomes and how research can be employed to improve the health and well-being of Aboriginal peoples. The sociopolitical importance of focusing on these questions, and others linked to KT, is fully recognized by the Aboriginal community: "We've been researched to death…it's time we started researching ourselves back to life" (Brant-Castellano, 2004, p. 1); this statement highlights the need for ways to make research more relevant and actionable for Aboriginal communities — in other words, the need for KT.

In drawing attention to the need to conceptualize Aboriginal KT, we point out that in this article the phrase Aboriginal health refers to the specific health issues and health status of Aboriginal peoples, as documented in the literature, along historical, cultural, and epidemiological dimensions, often in comparison to Canada's non-Aboriginal population (Waldram et al., 2007). When discussing Aboriginal health, however, one

must keep in mind that Aboriginal peoples are not a homogeneous group. As defined by the Canadian Constitution, the term Aboriginal refers to First Nations, Métis, and Inuit populations. Despite a shared history of colonization and dependence on the state, each Aboriginal community has its own unique cultural, political, and linguistic history (Adelson, 2005). The study of Aboriginal health and KT must therefore be developed, evaluated, and understood in the context of each Aboriginal community (Hanson & Smylie, 2006; Smylie et al., 2003). But while it may not be possible to conceptualize a common meaning of KT for Aboriginal health, it *is* possible to describe some principles, ideas, and perspectives that are common to Aboriginal KT.

A preliminary conceptualization of Aboriginal KT is enabled in this article through a brief examination of the relevance of the mainstream KT debate for Aboriginal health contexts and a consideration of what is unique about KT in Aboriginal contexts. The examination draws on the literature that does address the topic of KT in Aboriginal contexts (Hanson & Smylie, 2006; Kaplan-Myrth & Smylie, 2006; Smylie et al., 2003), as well as on the Aboriginal health research literature that discusses various components of KT.

What Is Aboriginal Knowledge Translation?

The question What is Aboriginal KT? poses the same challenges as the mainstream KT discourse — that is, the need to investigate and comprehend the complexities and intricacies of what it means to translate research into improved health. These challenges are reflected in the assertion by the Aboriginal health research community that it currently is in a "state of uncertainty in respect to knowledge translation and what it means" (IPHRC, 2005, p. 9). This uncertainty is particularly strong in Aboriginal contexts because those interested in understanding KT in such contexts are challenged to examine whether and how the mainstream debate is even relevant to Aboriginal health.

An examination of the relevance of the mainstream KT debate must begin with the terminology. The term knowledge translation has received considerable attention in Canada as a result of its definitional development and usage by the CIHR. Since one of the CIHR's 13 institutes is the Institute of Aboriginal Peoples' Health, the term has also been at the forefront of the literature on Aboriginal KT (Hanson & Smylie, 2006; Kaplan-Myrth & Smylie, 2006; Smylie et al., 2003). Nevertheless, the term knowledge transfer is also in common usage among Aboriginal health research organizations (Ranford & Warry, 2006; http://www.nearbc.ca/about.html). In many cases, however, knowledge transfer and knowledge translation are not differentiated, and when they are differen-

tiated the balance of support frequently lies with knowledge translation, as knowledge transfer is thought to imply a one-way transfer of information, from academic to Aboriginal settings (Ranford & Warry, 2006); this is problematic in Aboriginal contexts because it reinforces the historically paternalistic relationship between Aboriginal and non-Aboriginal populations (Adelson, 2005), devalues the knowledge held in Aboriginal communities, and disregards the potential for exchange between equals (Ranford & Warry, 2006). Knowledge translation is thought to represent a more holistic and palatable definition of the interactions between research, policy, and practice in Aboriginal health (Ranford & Warry, 2006). Despite the general favourability of the term, there are concerns that the mainstream definition of KT needs to be further adapted to ensure that this translation is understood, is part of a truly two-way process, and incorporates the unique aspects of KT in Aboriginal contexts (Ranford & Warry, 2006). These concerns beg two questions: How is this two-way process enabled? What are the unique aspects of Aboriginal KT? These questions are addressed in the following section.

The Aboriginal Health Context

The Aboriginal health context presents two unique challenges for KT. The first is related to the influence of the historical relationship between Aboriginal peoples and the Canadian state with respect to the conceptualization and practice of KT. The second challenge, which is closely related to the first, has to do with the influence of the cross-cultural setting of KT in Aboriginal health settings.

Historical Influences

As noted by a number of authors, the poor health experienced by Aboriginal peoples in Canada is a product of the continuing colonial and paternalistic relationship between the Canadian state and the First Peoples of the land (Adelson, 2005). The evolving field of Aboriginal health research has sought to tackle concerns about this history through engagement in ethical research with Aboriginal peoples (Brant-Castellano, 2004; CIHR, 2007). The landscape of research with Aboriginal peoples that has developed as a result includes a number of protocols for research at the community (Kahnawake Schools Diabetes Prevention Project, 2007), regional (BC ACADRE, 2007; University of Victoria Indigenous Governance Program, 2003), and national (CIHR, 2007; Government of Canada, 2005; Schnarch, 2004) levels. These protocols call for the development of robust, principled partnerships between researchers and Aboriginal peoples, which are essential to the success of Aboriginal health research (Brant-Castellano, 2004).

The mainstream KT literature suggests that the development of part-nerships and trust is related to many different aspects of KT (Bowen & Martens, 2005). A Web-based survey conducted by the Indigenous Health Research Knowledge Transfer/Translation Network found "a close rela-tionship between KT and the establishment of partnerships between communities and researchers" (Ranford & Warry, 2006, p. 13). This is because research that recognizes and incorporates Aboriginal peoples as full research partners is "grounded in mutual respect that ensures mutual benefit in all KT related initiatives" (Hanson & Smylie, 2006, p. 7). It is also why community-based research approaches[1] are believed to facilitate KT: They provide a structure through which researchers and Aboriginal peoples can come together to define and implement research and influence practice through evidence-based policy.

Where KT is understood to evolve from relationship-building, dialogue, and discussion, emphasis is placed on the KT process. This reflects the idea of integrated or embedded KT, which is defined and discussed in the mainstream literature (Gold, 2006; Graham, 2007). With integrated KT, the transmission of research into policy and practice is an ongoing process: It begins prior to submission of the research proposal and ends after the data have been destroyed (Graham, 2007). As a result, partnerships and interdisciplinary interactions are seen as particularly important (Gold, 2006). It is from this understanding that researchers and users, such as researchers and Aboriginal peoples in Aboriginal health contexts, are viewed as partners in the generation and dissemination of knowledge. The conceptualization of integrated KT "as an ongoing process, not a one-time act" (Pyra, 2003, p. 14) sits in contrast to the more traditional view of KT as occurring at the end of the research project (Graham, 2007). This is an important distinction with respect to Aboriginal KT, because integrated KT stresses the importance of process and partnership for ensuring that research is ethical, relevant, and action-able for Aboriginal communities.

Cross-cultural Influences

The development of ethical guidelines to ensure effective and appropriate interactions within the research community in Aboriginal health research contexts is connected to the (often) cross-cultural nature of Aboriginal health research. This is reflected in the requirement that researchers meet international standards of excellence in Western science while simultane-

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[1] The terms community-centred and community-based and the terms participatory research, involved research, and collaborative research are used interchangeably in the literature to describe an approach to research that involves the community at all stages of process and design (Israel, Schulz, Parker, & Becker, 1998).

ously integrating and balancing Aboriginal "ways of knowing." The inclusion of both Aboriginal and mainstream perspectives is intended to create an environment for sharing best practices in research interpretation and to transform innovative knowledge products, derived from different points of view, to improve Aboriginal health. The challenge is in reconciling these two seemingly opposed worldviews:

> Western and native science traditions are very different in terms of the ways in which people come to know, the ways in which knowledge or understanding is shared, how knowledge is transferred from one generation to another and how knowledge is handled legally, economically, and spiritually. (Cajete, 2000, p. 287)

The belief that Western science and Indigenous ways of knowing represent separate and incompatible worldviews, however, ignores the relationship between the two worldviews and the benefits that can be drawn from the use and incorporation of both (Smylie et al., 2003). This perspective is evident in the Aboriginal health research literature on the concepts of "ethical space" (Ermine, Sinclair, & Jeffrey, 2004; Ford, 2006) and "two-eyed seeing" (Wiber & Kearney, 2006) described below.

The term ethical space was coined by Roger Poole in 1972 (Ford, 2006). Its articulation in Aboriginal health contexts is facilitated by the work of Willie Ermine (Ermine et al., 2004; Ford, 2006). What ethical space means is that when two worldviews intersect or interact, space must be created to allow for discussion and dialogue. During this dialogue, the two systems can move from talking about or to one another to talking together (Ford, 2006). Two-eyed seeing, on the other hand, refers to the ability to see "via the strengths of both Indigenous and Western scientific knowledge and ways of knowing" (Wiber & Kearney, 2006). This is a mindful process of learning the strengths of both systems and how to use them together in academic and community settings (Wiber & Kearney, 2006).

It is evident even from this brief discussion of these rich ideas and their relationship to KT that there are ways to conceptualize interactions between the two worldviews. Integrating the perspectives of the mainstream health research community and the Aboriginal community requires balance and synergy to inform innovations for improving the health and well-being of individuals and populations. Presently, the balance of influence regarding the use of Western science and Aboriginal ways of knowing favours Western science, yet Aboriginal knowledge is having an impact. For instance, while the application of Western research has been the focus of KT studies and practices, it must be recognized that the translation of Aboriginal knowledge into research is also needed (Ranford & Warry, 2006, p. 5).

The Two–Communities Approach

When reviewing the key concepts discussed in the Aboriginal health research literature and their relation to KT in Aboriginal health contexts, there is a tendency to examine KT in terms of the favourability of inter-action between researchers and Aboriginal peoples. The two-communities theory (Dunn, 1983) has historically grounded the conceptualization of KT in mainstream health contexts. This theory is based on the view that cultural differences between researchers and policy-makers hinder the use of knowledge and the transmission of knowledge between the two groups (Dunn, 1983). While useful and relevant in many ways, the two-communities theory has been criticized for the simplicity of its focus and for its view of KT as a one-way process involving two distinct groups (van Kammen, de Savigny, & Sewankambo, 2006; Wingens, 1990). Because Aboriginal KT is conceptualized as occurring between researchers (employing Western Scientific perspectives) and Aboriginal communities (informed by Aboriginal ways of knowing), it could be seen as simply a reinvention of the two-communities theory.

In order to move beyond the research-Aboriginal community conception of KT and avoid this tendency, one should examine how and why a researcher-community focus is limiting. In situating Aboriginal health research in a broader context, one can see how the expertise of other groups could benefit the conceptualization and implementation of KT. While the scientific and methodological expertise of researchers and the cultural and local expertise of communities are essential to KT, prac-titioners and policy-makers can bring important skills to the table (National Centre for the Dissemination of Disability Research, 2008). For instance, frontline workers can bring their practical experience of KT, while policy-makers and decision-makers in fields relevant for Aboriginal health can provide resources, skills, and knowledge of the political context governing the implementation of research. In addition to the need for relationships between these communities at a personal level, there is a need to share literature and take advantage of the inter-disciplinary nature of KT. For example, the nursing research literature demonstrates that nurses use many different types of evidence (Estabrooks, 1998; French, 1999), that definitions of evidence need to be reviewed and related to practice (Kirkham & Baumbusch, 2007), and that the lack of access to and support for the use of research findings can create barriers for nurses attempting to apply research evidence in practice (Retsas, 2000). The connection between research and policy is also evident in a number of subfields of policy studies. The environmental policy literature, for example, comprises a number of sub-literatures that ask whether and under what conditions scientific findings are used to

create policy change (Andresen, Skodvin, Underdal, & Wettestad, 2000; Bocking, 2004; Harrison & Bryner, 2004).[2]

The overlapping focus of these literatures suggests that all stakeholders should be incorporated into KT processes and should interact and associate with each other to ensure the success of KT (Gowdy, 2006). The development of a model of such interactions requires communication strategies. Language use is not consistent across professional and cultural groups (Research Impact, 2008). Differences in language use are often accentuated in cross-cultural contexts. For instance, non-Aboriginal health-care workers "are at a particular disadvantage in that they are often only able to communicate through the language and culture of biomedicine" (Adelson, 2005, p. S46). Information can get lost in translation, as words may not mean the same thing or may be interpreted differently (Research Impact, 2008). This is evident in the KT debate itself, where KT is used as an abbreviation for both knowledge translation and knowledge transfer (Department of Business, Enterprise, and Regulatory Reform, 2007; Graham et al., 2006). While the differences between the two terms may be subtle, the terminology can obscure fundamental differences in one's understanding of knowledge and practice, as well as the relationship between the two. What this suggests is that time should be built into discussions to allow for the resolution of these differences and perhaps for the development, at the outset, of a common understanding of terms and meanings.

While it is logical to argue that the optimal type of KT will involve and integrate the ideas and perspectives of all potential stakeholder groups, KT should also occur within each of the relevant communities — that is, between Aboriginal communities, between health researchers, between policy-makers, and between health practitioners. The role of individuals and groups that span one or more of these stakeholder communities, such as Aboriginal researchers or nurse researchers, in facilitating various aspects of KT will also need to be examined. Further, queries about whether research can or should integrate various stakeholder communities, and at what stages in the process each of the interactions take place, will have to be considered. For instance, it is logical to assume that research that does not affect the work of one or more of these groups would not need to facilitate interactions between all communities.

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[2] Some examples of these large sub-literatures include a focus on the idea of policy learning (Haas, 2000); the role of ideas, relative to that of power and interests, in policy processes (Haas, 2004; Hoberg, 1996; Lertzman, Rayner, & Wilson, 1996); and, finally, the role of policy entrepreneurs and epistemic communities, or "experts," in influencing and facilitating the promotion of policy ideas and the impact of science on policy (Haas, 1992; Mintrom, 1997).

In addition to discussing the various roles and relationships of different communities and stakeholder groups, a model of Aboriginal KT will have to take into account the social and political context in which the translation process takes place. It must include, for example, an examination of the response of the mass media and the public to Aboriginal health research, and the role of each in facilitating discussion about research, as well as the political climate and attitude towards Aboriginal heath issues that will inevitably influence the course of KT.

Knowledge Translation in Practice

As Aboriginal KT is a complex and multidimensional phenomenon, its parameters are not easily defined. Based on the above discussion and the associated literature, however, one can argue that Aboriginal KT is an ongoing, ethical process of exchange between two or more parties. Knowledge translation is difficult to characterize. In the literature a number of different activities, practices, and processes are labelled as KT. These include "making research findings accessible; training and education; involving communities and individuals in shaping research; engaging in meaningful dialogues" (June Bold, quoted in Kaplan–Myrth & Smylie, 2006, p. 25). The lack of a clear definition has resulted in the labelling of even the most ordinary interactions as KT.

As KT continues to develop in health contexts, its definition and meaning will have to be clarified, as will its actualization. Aboriginal communities, health practitioners, and other professionals who have an intimate understanding of practice contexts can add greatly to the conceptualization of Aboriginal KT. The development of evaluation tools and methods will also be necessary if the concept of KT is to be sustained.

Conclusion

While we have sought to develop a preliminary understanding of what KT means for Aboriginal health, the discussion has shown that much more is needed before we can understand what KT means in the Aboriginal context, how it can be effectively implemented, and how it can be used to improve the health and well-being of Aboriginal peoples. Two certainties can be drawn from this brief exploration. First, KT must become a focus at all levels and from all perspectives. For instance, researchers, Aboriginal communities, policy-makers, and practitioners will have to work together in order to meet its goals. Broad partnerships and open communication at all stages of the research process have the potential to ensure that knowledge is used to positively influence the health of Aboriginal peoples at the community and individual levels. This

will require continual discussion, analysis, and examination of the meaning and practice of KT across disciplinary boundaries and cultural divides. The nursing community has a unique perspective to add to KT discussions; its understanding of the KT practice environment can serve to ensure that research is properly implemented and understood. Examination and exploration of the context of KT discussions and practices are important for the conceptualization of Aboriginal KT. They should include an examination of the influences of the political environment, the mass media, and public attitudes on the need for and importance of translatable and actionable research.

Second, KT is important for the future. If Aboriginal health continues to be pushed to the bottom of the political agenda, Canada will continue to be the object of shame internationally for its neglect and mistreatment of Aboriginal peoples (Epstein, 1982). This is more than just an embarrassment; it is a preventable tragedy. By striving to understand KT and implement it in the context of Aboriginal health, we can participate in the "quest to improve Aboriginal Peoples' health in Canada" (Reading, 2006). Further, the knowledge gained about the connections and intersections between the worlds of research, policy, and practice in this context will likely serve to inform efforts aimed at improving the health and well-being of all Canadians.

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