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An Indigenous Epistemological Approach to Promote Health Through Effective Knowledge Translation

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Abstract

Through indigenous epistemologies a holistic health framework is promoted and indigenous concepts like two-eyed seeing offer critical decolonizing conduits for knowledge translation and enhanced health outcomes. Yet, in health care settings dominance of scientific research-based evidence downplays tacit knowledge. For enhanced health outcomes in indigenous community settings, effective knowledge translation is essential through synthesis of research-based explicit knowledge and tacit know-how adapted to local needs. This paper discusses essential characteristics of effective knowledge translation practices, and presents two examples of best practices of knowledge translation in indigenous contexts.

Key words: Indigenous, Health, Two-eyed seeing, Knowledge translation, Tacit knowledge, Explicit knowledge

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Health and Knowledge Translation

In Canada, First Nations, Inuit, and Métis communities have higher rates of communicable disease, chronic disease, mental illness, and preventable injury, as well as shorter life expectancies, than their non-indigenous counterparts (Lauren, Baba & Reading, 2012; Waldram, Herring & Young, 2006). This disproportionate burden of ill health experienced by indigenous people compels attention to knowledge translation (KT) in indigenous contexts and highlights the urgency to harness tacit knowledge.

Knowledge translation or the process of moving what we know in theory into practice, has been defined in many ways. At the Indigenous Knowledge Translation Summit, held at the First Nations University of Canada, Saskatchewan, a simple yet profound definition of KT emerged from the participants, "sharing what we know about living a good life" (Kaplan-Myrth & Smylie, 2006, p. 25). The Canadian Institutes of Health Research (CIHR) defined KT as "a dynamic and iterative process that includes the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve health, provide more effective health services and products and strengthen the health care system" (CIHR, 2005, para. 2). The World Health Organization [WHO] advocated KT as a way of bridging the know-do gap with the use of available knowledge. Overall, KT can be understood as a multipronged process encouraging iterative exchange of knowledge among stakeholders both researchers and community members for enhanced health outcomes.

As a process, KT is complex, iterative, multi-dimensional, and non-linear engaging multiple stakeholders (Gibbons, 2008; Graham et al., 2006; Sudsawad, 2007; Welch, Euffing & Tugwell, 2009). Involvement of stakeholders, particularly end-users or community members is important for implementation. In fact, the back bone of effective KT is collaborative engagement with stakeholders, and multidirectional movement of knowledge between and within research and practice settings (Straus et al., 2009). As part of the collaboration, research findings are contextualized to meet community member's needs. In other words, research becomes integrated with previously held knowledge and new knowledge is created through dynamic interactions with each other. Stakeholder involvement and collaboration can begin even at the stage of problem identification, and can continue until after implementation is over. In indigenous contexts, collaboration has both historical and ethical underpinnings and thus has immense importance in the KT process.

Indigenous cultures throughout the world have substantial and systematic knowledge gained through generations of observation and practice. However, very little of this tacit knowledge has been scientifically documented (Alexander et al., 2011). For effective KT, careful attention to the importance and influence of tacit knowledge in program planning is needed (Kothari et al., 2012). Effective KT at the community level among end-users entails an understanding of the systems operating in the community. Tacit knowledge of the community members or end-users themselves can also provide an understanding of how and why things

work the way they do. This understanding can help health practitioners identify the essential factors and variables for successful implementation of planned projects and interventions (Kelly, et al., 2007). In indigenous contexts, the acknowledgement of tacit knowledge can lessen the colonial legacy of marginalization while, negating or ignoring tacit knowledge is reminiscent of colonialism where indigenous people were deprived of not just their knowledge and culture, but also their human identity and dignity.

Knowledge Translation in Indigenous Contexts

For effective KT and enhanced health outcomes in indigenous contexts, an exploration of best practices within indigenous contexts is essential. Noted Mi'kmaw Elder Albert Marshall offered the term two-eyed seeing for bringing together strengths of both indigenous knowledge and western knowledge for effective KT and improved health outcomes (Bartlett 2006, 2011, 2012; Bartlett, Marshall, M., & Marshall, A., 2012; Hatcher & Bartlett, 2010; Hatcher, Bartlett, Marshall, A., & Marshall M. 2009; Iwama, Marshall, M., Marshall, A., & Bartlett, 2009; Wiber & Kearney, 2006). In order to apply two-eyed seeing, familiarity is essential with both indigenous knowledge systems, and western scientific knowledge systems (Aikenhead & Michell, 2011). Embedded in the concept of two-eyed seeing is a critique of positivism, which has historically undermined and relegated indigenous ways of knowing as unscientific and hence as not valuable. The concept of two-eyed seeing promotes a constructionist, democratic, and decolonizing view, and emphasizes the importance of giving equal consideration to diverse worldviews - indigenous and non-indigenous - such that both worldviews value the contributions of the other without domination (Martin, 2012). Contrarily, an unidirectional flow of knowledge reinforces paternalistic and colonial relationships between indigenous and nonindigenous communities (Estey, Kmetic, & Reading, 2008; Graham et al., 2006). Further, onesided transfer of knowledge negates the knowledge held in and by indigenous communities, and disregards the potential for meaningful partnership and sustainable positive health outcomes.

Similar to any KT process, indigenous KT is a complex and multidimensional phenomenon and is founded on an ethical and respectful knowledge exchange between two or more parties that are working towards mutually beneficial results (Estey et al., 2008; Ktunaxa, 2011; Sudsawad, 2007). Knowledge translation in indigenous contexts creates linkages between researchers, policy makers, and indigenous communities; ensures that communication is maintained between researchers and end-users; and facilitates policy development, dissemination, and research uptake. There is space for indigenous people to participate in identifying and defining problems in the community, and determining the gaps in knowledge, analyzing research in the field, and synthesizing evidence or information. There is also scope for proposing policies and programs, and enabling culturally sensitive and relevant action based on evidence. In indigenous contexts, KT needs to evolve from relationship-building, dialogue, and discussion (Bailie et al., 2010; Estey et al., 2008). An in-depth understanding of both western and indigenous knowledge and of health care systems is required for successful KT (Maar et al., 2009).

The landscape of KT with indigenous people that has developed as a result includes a number of protocols for research at the community level (CIHR, 2005). These protocols call for robust and principled partnerships between researchers and indigenous people. More often than not, western science dominates health research and practice of health care. However, it is increasingly recognized that two-way exchange and synthesis of knowledge is necessary,

irreplaceable, and invaluable in indigenous contexts (Estey et al., 2008). Integrating the perspectives of researchers and the indigenous community requires respect for both, and understanding of the benefits that knowledge exchange, and synergistic synthesis can bring to improve the health and well-being of indigenous communities (Chilisa & Ntseane, 2010; Denetdale, 2010; Estey et al., 2008). For KT to be effective and successful in indigenous contexts, researchers, indigenous communities, policy-makers, and practitioners must work collaboratively towards common goals. Partnership with indigenous people must become an integral part at all levels and from all perspectives. 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 indigenous people. Sharing research results with indigenous KT. Linda Smith (1999) a noted indigenous scholar, stated that it was arrogant for researchers to presume that indigenous people would not understand the research and reiterated that it was the researchers' duty to communicate in a manner that would be understood by the indigenous people.

Models for Knowledge Translation in Indigenous Contexts

Health is conceptualized holistically as a balance between the physical, mental, emotional, and spiritual realms of life in indigenous cultures (Reading & Wien, 2009). Health and wellness of an individual are not separated from health and wellness of the individual's family and community. Kirmayer and colleagues (2000) reiterated the need to consider adapting western models of health care with indigenous concepts of health and indigenous models of health care. The authors suggested that there is a "need to rethink the applicability of different models of intervention from the perspective of local community values and aspirations" (p. 36). Several models based on indigenous concepts of health and well-being have been advanced for KT in indigenous contexts. Some of the models discussed below promote indigenous epistemologies such as two-eyed seeing. Indigenous epistemologies of health and wellness are embodied in models such as the Circle of Life, the Medicine Wheel, the Life Course Epidemiology Framework, the Determinants of Health Model, and the Integrated Life Course and Social Determinants Model of Aboriginal Health (ILCSDAH). Through a holistic understanding of health, these models explore pathways and points for effective interventions by adopting a life course approach that promotes integration of social and biological risk factors allowing researchers and the community to map out the problem and strategize implementation of possible solutions (First Nations Information Governance Centre, 2005, Kuh, Ben-Shlomo, Lynch, Hallqvist, & Power, 2003, Lynch & Smith, 2005, Reader & Wien, 2009).

The Circle of Life and the Medicine Wheel models connect the experiences and wellness of infants to the experiences and wellness of children, youth, young adults, parents, grandparents, and elders, again from the perspective of an individual, a family, and a community (First Nations Centre Information Governance, 2005). The Life Course Epidemiology framework and the Determinants of Health model incorporate perspectives on risk factors, such as the biological, social, economic, environmental, and political factors that affect a person's health (Reading, 2009). Determinants' of Health perspective stresses a parallel understanding of social change to support and complement health recommendations. The Integrated Life Course and Social Determinants Model of Aboriginal Health (ILCSDAH) subsumes the previous models, and depicts life stages, socio-political contexts, and social determinants as spheres of origin, influence, and impact. This model postulates a multidimensional and dynamic interplay of the

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physical, spiritual, emotional, and mental factors, and emphasises that social determinants have a direct impact on health. In doing so the ILCSDAH model promotes examination of the socio-economic and socio-political contexts, life stages, and myriad dimensions of health that act as pathways through which determinants express influence on health (Reader & Weine, 2009).

The Integrated KT model promoted by CIHR is yet another model that is in sync with indigenous epistemologies encouraging involvement of end-users in the research process. This model is different from the end-of-grant KT model where the unidirectional flow of information and dissemination of research findings is considered KT. In the end-of-grant KT model, end-users receive research findings through academic venues such as journal publications, and research findings are perceived to have global applicability. On the other hand, the Integrated KT model advocated by the CIHR is a collaborative way of doing research that promotes partnership among researchers and community members throughout the research process. This model provides space for indigenous people's involvement in all phases of the KT process, promotes understanding of the local context, values, and cultural practices, and thus, holds greater possibility of enhanced KT and improved health.

Best Practices for Knowledge Translation in Indigenous contexts

In Canada, a number of successful practices have incorporated elements of two-eyed seeing and elements of the models discussed above for enhanced health care in indigenous contexts. A few successful practices include: the Anishinaabe Health Toronto; the Akwesasne Traditional Healing Lodge; the Iyiniwak Traditional Healers Gathering; the UMIYAC/ACT Health Brigades (National Aboriginal Health Organization); the Knaw Chi Ge Win service system; and the Six Nations Maternal and Child Centre. Over the past decade, the Knaw Chi Ge Win service system has effectively synthesised indigenous healthcare and western healthcare practices, and offers integrated community-based health services. Situated in the Manitoulin District in Northern Ontario, this health service system caters to mental health needs of First Nations communities. Development of collaborative programs, and a multidisciplinary approach bringing together traditional indigenous practices and clinical services are hallmarks of this service system (Maar, 2004).

The Knaw Chi Ge Win service centre incorporates principles of two-eyed seeing and has developed new strategies for greater integration between traditional and clinical services including shared intake, case coordination, and case collaboration. Since 2000, traditional healing protocols were developed and were supplemented with ongoing capacity building for traditional healing (Maar et al., 2009). Services offered at the Knaw Chi Ge Win centre are coordinated by two regional Aboriginal health organizations. The first is the Mnaamodzawin Health Services (MHS), which is a regional provider of First Nations community health services. The second is the Noojmowin Teg Health Access Centre (NT), which is a regional provider of interdisciplinary primary care services. Both organizations emphasise community-based indigenous health care approaches and share a common goal. The Knaw Chi Ge Win Team has a multi-disciplinary team of experts from the fields of psychology, mental health, nursing, longterm care, social work, and traditional indigenous medicine and healing. Visiting specialists, such as psychiatrists, also provide consultancy services. Besides integration of indigenous healing practices with clinical approaches, at a more detailed level, KT practices chiefly responsible for this centre's success include implementation of shared protocols, formalisation of information sharing, and attention to cultural safety. Overall, the multi-disciplinary and

integrated approach to health care practiced in this centre ensured better mental health for the First Nations' people and resulted in a reduction in the number of patients who required acute care in psychiatric hospitals from 3-4 persons to 0-1 persons per year (Maar et al., 2009).

Another best practice in healthcare incorporating two-eyed seeing for effective KT is the Six Nations Maternal and Child Centre in the Grand River reserve in southern Ontario. This centre was the first in Canada to provide training for indigenous midwives, and offers midwifery training and community-based birthing facilities (Ajunnginiq Centre, 2006). These trainings and the culturally safe environment increased traditional birthing practices such as birthing stools and the number of safe deliveries and brought about a 19 percent increase in the number of a decade (Stout & Harp, 2009, NAHO, 2004).

Conclusion

In the field of health and in the process of KT, knowledge has until recently been understood as being predominantly "health-research-generated" information (Smylie, 2011, p. 181). Within indigenous contexts however, KT is upheld as a sharing of knowledge and the implementation of two-eyed seeing for enhanced health. As advocated by Mi'kmaw Elders such as Elder Marshall and Canadian Research Institutes especially the CIHR, long term partnerships that promote participatory, collaborative, and culturally safe practices are needed among researchers, health practitioners, and community members for bridging of the know-do gap. Such strategies incorporate a critical decolonizing two-eyed seeing perspective by effective integration of tacit and explicit knowledge from both indigenous and western contexts for enhanced health in indigenous communities.

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