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Research as Cultural Renewal: Applying Two-Eyed Seeing in a Research Project about Cultural Interventions in First Nations Addictions Treatment

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Abstract

This article explores the application of two-eyed seeing in the first year of a three-year study about the effectiveness of cultural interventions in First Nations alcohol and drug treatment in Canada. Two-eyed seeing is recognized by Canada's major health research funder as a starting point for bringing together the strengths of Indigenous and Western ways of knowing. With the aim of developing a culture-based measurement tool, our team carried out an Indigenous-centred research process with our interpretation of two-eyed seeing as a guiding principle. This enabled us to engage in a decolonizing project that prioritized Indigenous methodologies and ways of knowing and knowledge alongside those of Western science. By concentrating on Indigenous governance in the research process, our project supported efforts at Indigenous cultural renewal. Two illustrations are offered, our team's reconceptualization of Western derived understandings of data collection through Indigenous storytelling and our research grant timeframe with Indigenous knowledge gardening. This article contributes to the Indigenous research and policy literature which is lacking documentation about how Indigenous communities and research teams are benefitting from two-eyed seeing.

Keywords

cutural renewal; two-eyed seeing; cultural interventions; Indigenous governance; First Nations addictions treatment

This article reflects on the substantial benefits our community-based research team gained by applying two-eyed seeing as a guiding principle in its three-year study. *Honouring Our Strengths: Indigenous Culture as Intervention in Addictions Treatment* was launched in 2012 with the ultimate goal of developing a measure to gauge the effectiveness of cultural interventions in First Nations alcohol and drug treatment in Canada. Our team's interpretation and application of two-eyed seeing as a guiding principle has aided us in engaging in a decolonizing project that prioritizes Indigenous methodologies and ways of

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knowing and knowledge alongside Western science. Two-eyed seeing assisted our team with supporting Indigenous cultural renewal by confronting colonial practices via First Nations governance in our collaborative study involving Indigenous and non-Indigenous researchers. ² Governance is a large and at times unwieldy concept that draws from diverse disciplines and is interpreted variously. We share with Bevir (2009) that "governance includes new ways of thinking about social coordination and patterns of rules as they appear in civil society, political institutions, and the international arena" (p. viii).

The concept of two-eyed seeing originated through in the work of Mi'kmaq Elders Murdena and Albert Marshall from Eskasoni First Nation, along with Dr. Cheryl Bartlett at Cape Breton University's Institute for Integrative Science and Health/Toqwa'tu'kl Kjijitaqnn (Iwama, Marshall, M., Marshall, A., & Bartlett, 2009). Two-eyed seeing is expressed by Elder Marshall as: "To see from one eye with the strengths of Indigenous ways of knowing, and to see from the other eye with the strengths of Western ways of knowing, and to use both of these eyes together" (Bartlett, Marshall, M., & Marshall, A., 2012, p. 335). The Canadian Institutes of Health Research's (CIHR) Institute of Aboriginal Peoples' Health has adopted the concept of two-eyed seeing with the goal of transforming Indigenous health and figures it prominently in its vision for the future (CIHR, 2011).

Understanding research as cultural renewal, that is, research as inherently beneficial to the healing and wellbeing of Indigenous communities, has become increasingly accepted among Indigenous researchers seeking to undo the entanglements of earlier colonial research (Smith, 1999). Research, in the words of Elder Albert Marshall, must attend to the wholeness of a community, the "physical, emotional, cognitional, and spiritual ... and the individual, yes, but also the collective" (Bartlett et al., 2012, p. 338). In many ways, these words build on the vision of the unnamed Elder who, at the start of the Royal Commission on Aboriginal Peoples, famously shared that "if we [Indigenous peoples] have been researched to death ... maybe it's time we started researching ourselves back to life" (Brant Castellano, 2004, p. 98). As a guiding principle, two-eyed seeing is flexible: It offers Indigenous peoples across Canada the opportunity to tailor a collaborative research process with Western science that takes seriously the commitments, responsibilities, and potential of First Nations governed research (Iwama et al., 2009).

To reflect on the benefits of applying two-eyed seeing as a guiding principle in our study, we begin by situating colonialism as a root cause of addictions in First Nations communities. Our project is premised on the understanding that traditional cultural interventions in treatment can help heal the whole person—spirit, heart, body, and mind—and that Western

²We use the term Indigenous to replace the use of the common usage of the term word Aboriginal, which is limited to North America and is government imposed. According to the United Nations,

It is estimated that there are more than 370 million Indigenous people spread across 70 countries worldwide. Practicing unique traditions, they retain social, cultural, economic, and political characteristics that are distinct from those of the dominant societies in which they live. Spread across the world from the Arctic to the South Pacific, they are the descendants — according to a common definition—of those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived. The new arrivals later became dominant through conquest, occupation, settlement or other means. (Masaquiza, n.d., p. 1).

Although also government imposed, we use the term First Nation to specifically distinguish from Inuit and Métis Indigenous peoples in Canada.

scientific standards for measuring the benefits of culture can be met through the development of a First Nations specific cultural assessment tool. Next, the role of two-eyed seeing is discussed in our decolonizing project as an aid for prioritizing Indigenous methodologies and ways of knowing and knowledge alongside the knowledge garnered from methods common to Western science. We then provide illustrations of how our team's reconceptualization of and engagement with Western derived understandings of data collection and our research grant timeframe, supported by the application of an Indigenous understanding of storytelling and knowledge gardening, helped to foster cultural renewal. Documenting our team's interpretation and application of two-eyed seeing, and specifically concentrating on First Nations governance in the research process, is an important contribution to the Indigenous research and policy literature.

Background

In 2011, the Assembly of First Nations (AFN), the National Native Addictions Partnership Foundation (NNAPF) and Health Canada (First Nations and Inuit Health Branch) released a report on the addictions continuum of care from a nation-wide consultation with the National Native Alcohol and Drug Abuse Program (NNADAP) and the Youth Solvent Abuse Program (YSAP). The report, titled *Honouring Our Strengths: A Renewed Framework to Address Substance Use Issues among First Nations in Canada,* forefronts the prominent role of culture in First Nations' healing from substance abuse (NNAPF, Assembly of First Nations [AFN], & Health Canada, 2011). A key element of the framework is the identified need for Indigenous-centred research and performance measurements that honour cultural renewal. Cultural renewal, including traditions, ceremonial practices, and sacred roles, is understood to be intrinsic to Indigenous healing and wellness (Nagel, 1997).

In Canada, there are 49 federally funded adult and youth NNADAP and nine YSAP treatment centres. The majority of NNADAP centres were founded on Western approaches to treatment in the 1980s, and later incorporated Indigenous understandings of healing and personal growth. Culture was foundational to YSAP centres from their inception in the mid-1990s. Today, NNADAP and YSAP treatment centres variously apply Western therapeutic approaches, such as cognitive behavioural therapies, while increasingly strengthening the use of traditional cultural interventions (Dell et al., 2011).

Our current study team included Elders, Knowledge Keepers, treatment providers, individuals with lived experience, and academic researchers, both Indigenous and non-Indigenous and academic and community-based. Despite our varied backgrounds, we came together and jointly worked from the perspective of an Indigenous-centred research process. This process prioritized Indigenous methodologies and ways of knowing and knowledge through the application of our team's interpretation of two-eyed seeing and consequent attention to First Nations governance. While our project operated on the premise that applying research tools from Western science is necessary, such as particular forms of quantitative data analysis, care was taken that this did not dislocate First Nations governance from the research process. Without it, research efforts supporting cultural renewal would be significantly hindered, if not impossible. Substantial effort was directed toward bringing Indigenous and Western worldviews together in a way that reclaimed Indigenous

understandings of evidence-based research and that reinforced the empirical elements of an Indigenous worldview, as originally shaped by Elders and Knowledge Keepers.

The discussion that follows provides a grounded example by which addiction researchers can learn about how a two-eyed seeing research process can contribute to Indigenous cultural renewal. We begin by first situating colonialism as an underlying cause of problematic substance use for First Nations peoples and traditional culture as key to healing from its destructive impacts. We likewise acknowledge the historic problem of colonial research.

The Colonial Problem: Colonizing Research

Western science's questioning of culture and Indigenous worldviews, and their combined ability to impact healing for Indigenous peoples, was understood in our project to be inherently colonial. To explain this process, Canada's colonial history and its ensuing problematic position in research are briefly reviewed. Indeed, the relation between culture and wellness has long been acknowledged by cultural Knowledge Keepers, and more recently has been documented in Western scholarship (Dell et al., 2011; Hopkins & Dumont, 2010; Kirmayer, Simpson & Cargo, 2003). Historically, however, Indigenous wellness has been challenged by colonial efforts and this continues into the present day (Hansen & Antsanen, 2014; Tait, 2008). Ongoing colonization efforts, as explained by Alfred (2009), can be understood as both dispossession as well as dependency. To provide a clear-cut example of cultural dispossession, consider the constant pressures on Indigenous land relationships, as borders both physically (e.g., treaties) and metaphorically interrupt Indigenous peoples' rights and connections to traditional territories. At the same time, Indigenous peoples face cultural dispossession through "cultural dislocation" via "pressures exerted ... from settler society" (Alfred, 2009, p. 43). Indigenous women, for example, face epidemic levels of violence as a direct outcome of cultural loss and Indigenous communities face disproportionate rates of substance abuse and representation in child protective services and the prison system (Blackstock, Cross, George, Brown, & Formsma, 2006; Demers, 2014; Gough, Trocme, Brown, Knoke, & Blackstock, 2005).

Responding to Colonialism: Indigenous Cultural Renewal in Addictions Research

Indigenous scholars and communities and those working with them have challenged the assumptions of Western researchers and Eurocentric notions of Western intellectual superiority (Blaut, 1993) while creating spaces for collaboration and sharing in ongoing ways (Ermine, Sinclair, & Jeffery, 2004). To illustrate, Smith's (1999) book titled *Decolonizing Methodologies* unpacks the many dimensions of Eurocentric-Western research on Indigenous peoples. Her recent 2nd edition contributes to a growing record of Indigenous-centered research projects and practices that urge the development of long-term Indigenous non-Indigenous relations as imperative to develop a new research strategy (Smith, 2012). Terms like "smash and grab" are used to implicate those colonial researchers who have entered communities, taken what they needed, and left damage behind (Cleary, 2013, p. 13). The consequent disrespect given to Indigenous ancestral remains and cultural and sacred

items, for example, are part of a larger pattern of Euro-Western researchers disregarding Indigenous knowledge and appropriating it for their own use (Mann, 2003). A range of disciplines have been associated with these kinds of practices, leaving the prospects of collaborative research on shaky ground.

Some researchers acknowledge the linkage between Indigenous culture and healing from substance abuse as rooted with traditional Knowledge Keepers and communities (Dell et al., 2011; Kirmayer et al., 2003; Mushquash, Comeau, McLeod, & Stewart, 2010). Alfred (2009) shared that the central problem for Indigenous health rests on "the effect of colonially-generated cultural disruptions" (p. 42) and he and others (e.g., Kirmayer & Valaskakis, 2009) connect the subjugation of Indigenous cultures, including the exploitation of Indigenous lands, specifically to substance abuse. Dell et al. (2011) add that ongoing suppression of First Nations culture has significantly contributed to the problematic use of substances among recent generations of First Nations youth. It is necessary to recognize problematic substance use within this context, including the impacts of residential schooling, the Sixties Scoop (i.e., state apprehension of a generation of Indigenous children), and other legislative, social, cultural, and economic forms of oppression (Alfred, 2009; Barker, 2009). Kirmayer et al. (2003) optimistically offer though that, "Indigenous cultures have encompassed healing traditions that were then undermined by missionary efforts, but are now in a process of renewal" (p. 17). McIvor, Napoleon, and Dickie (2009) outlined the protective effects of culture (including traditional foods and medicines) and language thereby establishing connections between Indigenous cultural, economic, and political renewal, and overall health.

It has been our team's experience that culturally rooted addictions research can contribute to Indigenous wellness and cultural renewal by bringing awareness to the link between colonialism and addiction and by actively re-centering an Indigenous worldview and governance in the research process. It is important to point out that while challenging colonialism is vital, the strength of Indigenous culture must be central to the overall project (Alfred & Corntassel, 2005). Indigenous cultures have survived colonial interferences for over a century (Monture, 1999; Simpson, 2011), with possibly the most significant being the continued survival of Indigenous languages and ceremonies (Regan, 2010). In recent years, reconciliation and truth telling about Canada's colonial history has become central to national healing and renewal efforts. One pathway not often considered as supporting cultural renewal is research. In Canada, two-eyed seeing has emerged as a guiding principle for Indigenous research and our team's interpretation and application of it has, in our view, contributed to Indigenous cultural renewal.

Two-Eyed Seeing: Bringing Together Western and Indigenous Ways of Knowing

The application of two-eyed seeing as a guiding principle in research is intended to bridge the divide of power and understanding between Indigenous and Western researchers and processes. This translates for some researchers, including our team, into applying the tools of Western science from within an Indigenous worldview. Two-eyed seeing also aligns with decolonizing and Indigenous research methodologies (Kovach, 2009; Smith, 1999; Wilson, 2008), governance, and self-determination—that is, the principles of ownership, control,

access, and possession (OCAP) (First Nations Information Governance Centre [FNIGC], 2013; National Aboriginal Health Organization [NAHO], 2005) and research as ceremony (Wilson, 2008). There is also a link to Western research traditions in community-based, participatory, and action research, which have likewise emerged in response to colonial research practices and paradigms across the globe (Minkler, 1997). Ultimately, two-eyed seeing is envisioned by our team as a guiding principle for research to support a renewal of Indigenous ties to culture, land, and language (Iwama et al., 2009).

To illustrate, guided by two-eyes seeing from the start, our project undertook an environmental scan in its first year of traditional cultural interventions at 12 NNADAP and YSAP treatment centres across the country. Generally, environmental scans "are used to provide decision makers with knowledge about current social, economic, technological, and political contexts, and to identify any potential short- and long-term shifts" (Graham, 2008, p. 1022). Our team formulated research questions for the scan that acknowledged the inherent benefits of culture, while seeking community understanding about the nature of these benefits, and also accounting for the limitations that colonization has imposed on Indigenous culture.

Two-eyed seeing offers guidance for managing the contributions and tensions between Indigenous and Western researchers and processes. It is not simply about bringing the two worldviews uniformly together nor is it about trying to equally balance perspectives or "turn-taking." Rather, for our team, it is about making conscious decisions to activate the right lens based on which one is more appropriate to use given the circumstances at hand. In our case, the right fit meant that First Nations governance would lead the research process to establish the authority of Indigenous knowledge. This re-centering debases enshrined modes of colonial power and governance mechanisms as it brings into question the fundamental role of project team members. For example, principal investigators from academic institutions typically lead federally funded research processes. However, in our project, Elder Jim Dumont largely directed the data collection process. Initially, this was not a straightforward undertaking for our team to put into practice because gaps in understanding and tensions in power relations between Indigenous and non-Indigenous researchers remain very much rooted in historic, and often under-recognized, colonial power relations. In coming to recognize the colonial power relations that a funding award can imbue (e.g., who is considered knowledgeable or what kinds of knowledge are considered eligible to receive funding), our team was then able to negotiate the governance of our everyday work in a less colonial fashion. Ultimately, this better facilitated meeting the output and product requirements of the grant funding than holding to one knowledgebase would have allowed.

Adopting two-eyed seeing as a guiding principle in our study identified early on the individual and collective power differences of our various team members and Canada's colonial history. Summarized in the words of one of our team members, "the process of two-eyed seeing teaches Western team members to see the whole forest, to see the relationships, the ecologies, before chopping down individual trees to build a house" (Fornssler, personal communication, 2014). Our interpretation of two-eyed seeing, by emphasizing Indigenous governance, enabled us to then prioritize Indigenous methodologies and knowledge and ways of knowing. In turn, our research effectively supported efforts at cultural renewal. Two

illustrations of this are examined—our approach to Western-derived understandings of data collection and working within the imposed research grant timeframe. These illustrations conflict with ongoing colonization efforts often evidenced but largely unrecognized in research projects, and which Tuck and Yang (2012) described as "settler fantasies of easier paths to reconciliation" (p. 4). To apply First Nations governance to our research process, our team drew upon two Indigenous concepts: storytelling and knowledge gardening.

Two-Eyed Seeing as Storytelling: Collecting Data

Adopting two-eyed seeing as a guiding principle facilitated our team's application of an Indigenous-centred approach to data collection that highlighted storytelling. Storytelling is an embodied and interconnected form of knowledge sharing (Corntassel, Chaw-win-is, & T'lakwadzi, 2009). Storytelling in itself is and has innate connections to traditional Indigenous cultural practices and ceremonies, oftentimes accompanying or forming elements of them. Stories enact living knowledge rooted in animate ecologies (Sheridan & Longboat, 2006). Corntassel et al. (2010) wrote, "Indigenous storytelling is connected to our homelands and is crucial to the cultural and political resurgence of Indigenous nations" (p. 149). Stories themselves are recognized as cultural knowledge.

At the start of our project, our Western driven commitment to undertake an environmental scan at NNADAP and YSAP treatment centres was re-conceptualized to emphasize Indigenous storytelling. Environmental scans are increasingly being used by health researchers to develop evidence-based policies (Graham, 2008), although there is no documentation yet in the literature of an Indigenous centred environmental scan for data collection of which our team is aware. Members of our team visited 12 First Nations treatment centres with Elder Jim Dumont as the lead researcher. This meant that when academic researchers attended it was primarily as observers and record keepers.

Elder Dumont opened each treatment centre visit with the telling of the Anishinaabe Creation Story. When Elder Dumount spoke to Creation, his words honoured the spirits of place and the knowledge of the participants while gifting them with and lifting them through an intellectual, spiritual, emotional, and physical understanding of the wholeness and beauty of Indigenous lives, people, and land. To honour the stories and those they were being shared with, our team members shared gifts of tobacco, sweetgrass, and cloth unique to our own territories. Community members, Elders, and Knowledge Keepers reciprocally welcomed our researchers in ways that were inclusive of ceremony local to the First Nations of the territory or area. Gifts came in the form of welcoming ceremonies, sacred foods and medicines, and prayers for wellness, safety, and a good life, and were often spoken or sung in the home dialect of the community.

This Indigenous centred process not only addressed the problematic "helicopter approach" of research historically undertaken with First Nations—where researchers would drop in to collect data and leave with no benefits and too often disruptions to the community—but more important it facilitated community healing and growth (Ferreira & Gendron, 2011, p. 154). Elder Dumont's telling of the Creation Story, which is shared among First Nations across the land but is not universally known, as a part of the Environmental Scan and with the inclusion of ceremony enhanced Indigenous governance through empowerment via the

sharing of the knowledge itself and the culturally important form in which it was shared (i.e., storytelling). This is not a common recognized outcome of research other than in some community-based approaches and as continually emerging in Indigenous research approaches.

Our team identified and treated the stories shared with us as Indigenous knowledge; that is, complex teachings, humorous additions, historical happenings, and/or sacred tellings depending on the story and the intent for its sharing. We therefore did not "validate" the stories (the data) with Western processes and tools, but rather, we applied an Indigenous lens on the Western scientific research process to maintain cultural continuity in the construction of our culture-based measurement tool as well as to illuminate the gaps in cultural understandings between the two worldviews. For example, our team formed an Indigenous knowledge sub-group of Elders and Knowledge Keepers dedicated to ensuring that the information gathered remained rooted in Indigenous knowledge and ways of knowing. To illustrate simply, this group identified and explained inaccuracies in the use of terminology by some of our team members: Drums and feathers are not "artifacts;" they are sacred items that have an inherent spirit and value in a First Nations context.

Our team's facilitation of storytelling in our environmental scans, and corollary engagement in traditional Indigenous practices and ceremonies, offered us solid insight into how research can contribute to First Nations governance and cultural renewal. This happened on several levels. First, the act of bringing storytelling to a community and participating in its related ceremonies and practices supports cultural renewal through traditional knowledge sharing. This ranged in our project from Elder Dumont's teachings to the sharing of the good minds and spirits by local Elders and Knowledge Keepers. This was particularly important for community members disconnected from their traditional knowledge. Second, by participating in cultural practices and ceremony, such as prayer, our team celebrated an Indigenous worldview's inclusion of the Creator in the research process and our project benefitted from the guidance prayer offered. This likewise happened through gift giving, as we recognized the importance of culture and were able to promote its practice. In Anishinaabe worldview, gifting is "a gesture of relationship between people, animals, spirits, and other entities in the universe, given in the interests of creating ties, honoring them, or asking for assistance and direction" (Doerfler, Stark, & Niigaanwewidam, 2013, p. xv). For example, members of our team were gifted by a community with a sweat lodge at our first full team meeting. This allowed members of our team to participate in and practice culture. To do so in a context of teachings specific to our project enabled our team to move forward with the project "in a good way." Overall, identifying and treating the shared stories themselves as Indigenous knowledge offered our team specific insight into research supporting cultural renewal through First Nations governance of the process.

Two-Eyed Seeing as Knowledge Gardening

Knowledge gardening is a concept applied by Cheryl Bartlett and other members of the Institute for Integrative Science and Health at Cape Breton University, and is described as a dynamic interplay of seeding, nurturing, and growing information just as a traditional gardener of the land would (Bartlett et al., 2012, p. 336). Knowledge gardening recognizes a

consciousness between human and more-than-human environments, and the advantages of recognizing and bringing such knowledge together in timely, patient, and respectful ways (Bartlett et al., 2012; Karabeg & Lachica, 2008). Nurturing knowledge, much like seedlings and plants in a garden, supports cultural renewal via its inclusive approach that is respectful of place and territory, culture, and responsibility (Bartlett et al., 2012).

These ideas were similarly expressed in a teaching by one of our project's advising Elders, Gladys Wapass-Greyeyes. During our initial national team meeting, Elder Wapass-Greyeyes instructed several members of our team in a small group exercise to draw a flower. She shared that the flower represented an Indigenous approach to understanding wellness, starting with the roots of a person's life and lineage, moving upward through their connection with Mother Earth, and coming to flowering and fruition. The earth and the waterways evoked in Elder Gladys' image remind us that health and wellness is dependent on the wellbeing of all elements and members of creation. Elder Wapass-Greyeyes also reminded our team that a plant needs to be nurtured over time for a flower to bloom.

Attention to knowledge gardening in our project, and more specifically recognizing that consciousness exists between human and more-than-human environments, and the need to bring knowledge together in timely, patient, and respectful ways, aided our team in overcoming the limitations of Western understandings of a research grant timeframe. The Marshalls, along with Iwama and Barlett shared how, "[f]rom time to time, we grow anxious about the pace of our journey, what seems to be working and what not" (Iwama et al., 2009, p. 9). Instead of our project being stressed and limited by its imposed Western timeframe, we nurtured patience in our study and its environment, as well as with one another, so we could undertake a research process founded in Indigenous governance. This meant that when team members would raise concern over the extra time we allotted to a certain stage of the research process, we would all be reminded of the cultural guidance the project has been offered. It also meant that when Western research methods were used, a culturally rooted analysis was needed in order to validate the information. Though time intensive, it was necessary to sort the data analysis completed by Western researchers and coders through a cultural lens with Elders and Knowledge Keepers.

Without this understanding, our project would not have contributed to Indigenous cultural renewal. It seemed daunting at first, with the pressure of the funder's timeframe always looming, but as our project moved forward the benefits were recognized. In some communities, for example, paid on-site coordinators aided in reformulating our research questions to reflect important cultural nuances and to enrich our collective outcomes. It did add time to our originally envisioned research process, and made the timeline of other parts of the project "tight," but was nonetheless necessary. The Western concept of "time" and working from a set timeline was challenged with Indigenous knowledge and ways of knowing governing the process. Our team collectively carried the understanding that we would end up where we need to be by following an Indigenous-centred process that best fit the project. For example, we collectively understood that ceremonial prayer for the project would guide our team's work. Things did not always move smoothly when two opposing worldviews (the two eyes) approached an issue within the project in divergent ways. However, by the conclusion of the project and the analysis of our data with a primarily

Western tool (quantitative data analysis), few on the team were surprised that the research techniques that supported an Indigenous governed process ultimately developed a measure to gauge the effectiveness of cultural interventions in First Nations alcohol and drug treatment in Canada that was identified as valid through Western statistical techniques. The guidance of prayer and ceremony was near universally accepted among our team members to be a guiding force in all stages of the study.

Discussion

With two-eyed seeing guiding our team's experiences with our study and supporting an Indigenous-centred research process, we found that this created significant room for dialogue between Indigenous and Western thought. Winder (2005) described the space between the two eyes of two-eyed seeing as a place of potential, of energy, of "schismatic ambience ... between people and cultures, and in particular whenever and wherever the physical and philosophical encounter of Indigenous and Western worlds takes place" (p. 305). Our team's focus on Indigenous governance enabled us to engage in a decolonizing project that prioritized Indigenous methodologies and ways of knowing and knowledge alongside Western science. This naturally led to our research supporting efforts at cultural renewal through the application of the Indigenous concepts of storytelling and knowledge gardening to re-conceptualize Western derived understandings of data collection and a research grant timeframe. We have specifically learned through our research process that our team was able to recognize and engage with Indigenous knowledge with attention to cultural understandings, practices, and ceremonies. The need for a new approach, for this kind of approach, about building respectful relationships while ensuring that research adds to the renewal efforts of Indigenous communities, is well supported (Ermine et al., 2004; Smith, 1999).

By facilitating Indigenous governance in our project, it specifically helped our team to prevent Western science from being universalized to the exclusion of Indigenous science (Peat, 2002; Snively & Corsiglia, 2000). That is, we confronted in our project the commonly reproduced colonial-based research structure (Coulthard, 2007). Some communities and scholars are expanding this thinking to the idea of "borrowing back," as Indigenous peoples re-affirm our own scientific processes and initiate partnerships with non-Indigenous researchers. Scientific inquiry is not a new concept to Indigenous peoples. The Indigenous societies that Europeans first encountered in their post-1492 travels were larger and more developed than is currently understood (Mann, 2011). The innovations of Indigenous peoples range from permaculture and sustainable food production to democratic thought (Weatherford, 1988). While certain technologies, for example in aviation, may seem to be exclusively Western, many components of the technology originate in other cultures. For instance, vulcanized rubber was invented by Indigenous people in Peru (Snively & Corsiglia, 2000). Western scientists are coming to realize the loss that occurs when these innovations are ignored or devalued and some are now seeking to rectify the imbalance (Clark, 2002; Iwama et al., 2009).

Canada's colonial project is currently undergoing challenges on numerous fronts, including research (Regan, 2010). In our research team's experience, the insights we gained from

applying two-eyed seeing as a guiding principle weaves together with the efforts of Indigenous community-based researchers globally who have called for a decolonizing methodological approach that is both culturally grounded and community controlled (Smith, 1999; Smith 2012) as well as research that is in essence ceremony itself—renewing, healing, and beneficial to the communities involved (Wilson, 2008). At the same time, moving forward will still necessarily require consciousness about the unsettled nature of the Western colonial project. Keeping this in mind, alongside our team's insights from applying two-eyed seeing in our project, we suggest the following next steps for research and policy to forefront Indigenous governance under the guidance of two-eyed seeing and in support of cultural renewal.

First, we suggest furthering decolonizing theory and its translation into research practice. Attention to this has the potential to shift research processes and outcomes significantly, as has been demonstrated by the guidance two-eyed seeing offered to our study. Decolonizing theory pushes researchers to move knowledge beyond the boundaries of a particular project and as such offers avenues for broader cultural renewal, particularly when the research is community-based. This, in turn, will contribute to the identification of Indigenous-governed policy aims, research scope, and community impact. Second, we suggest linking with national projects that support cultural renewal and have the potential for significant policy impact. In the case of our project this includes, for example, the First Nations Mental Wellness Continuum Framework. A linking approach can help to legitimize ongoing Indigenous-governed work that is generated from varying perspectives and originating points and with a similar goal. Also, by sharing information and resources, researchers and others can work from the most current knowledge base available, ensuring our projects are both relevant and timely. Finally, we suggest creating pathways for cultural learning as understanding unfolds. This could mean engaging more casual conversation between team members, facilitating more formal teachings with Knowledge Keepers and Elders, or greater overall research team participation in culture camps and ceremony. It must be kept in mind in any movement forward that two-eyed seeing as a guiding concept is a learning process and not a perfected outcome. It is not a prescriptive list about how to achieve cultural renewal through an Indigenous governed research process.

There are two key limitations of this article. First is that our team interpreted two-eyed seeing very specifically as First Nations governance of the research process, which in turn, supports Indigenous cultural renewal. The scope of our culturally rooted analysis was based on information from First Nations Elders and Knowledge Keepers. Many would identify this as a strength. Second, First Nations governance does not just account for Indigenous methodologies, knowledge, and ways of knowing. As shared, governance can be an unwieldy term and variously interpreted. For researchers on this project, centering First Nations governance, capacity building, and knowledge renewal is also about moving toward decolonization as an ongoing project.

Conclusion

Working together, between Indigenous and Western sciences, necessitates an understanding of Indigenous governance, internal dissonance, and resistance within Western discourses,

and that a distance exists between the two worldviews. Resistance to colonial research practices were built into our study from the start alongside a First Nations worldview to ensure Indigenous governance of the project. Happenings such as Elder Dumont's gifting of the Anishinabe Creation story, alongside the gifts of other Elders' teachings, among many others, infused our research with a way of thinking, reflecting, and learning that is rooted in the beauty, creativity, and critical thought of an Indigenous worldview.

Across Canada, First Nations treatment centres have identified the need for work in addictions and mental health research that clearly and effectively re-centres the cultures and worldviews of First Nations peoples (NNAPF et al., 2011). We believe that our decolonizing study, through the guidance of two-eyed seeing as we interpret it, has been able to contribute to this goal. We encourage researchers and policy makers alike to renew Indigenous governance structures and strategies in lieu of projects that mistakenly centre colonialism in our collective narratives. Taking up this challenge has the potential to contribute to national as well as global efforts at Indigenous cultural renewal. Indigenous peoples are already in the process of reclaiming and renewing culture, identity, and belonging and guidance from two-eyed seeing can help contribute to this specifically in research and policy.

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References

Alfred T. Colonialism and state dependency. International Journal of Indigenous Health. 2009; 5(2): 42–60. Retrieved from http://www.naho.ca/jah/english/jah05_02/V5_I2_Colonialism_02.pdf.

Alfred T, Corntassel J. Being Indigenous: Resurgences against contemporary colonialism. Government and Opposition. 2005; 40(4):597–614.

- Barker A. The contemporary reality of Canadian imperialism: Settler colonialism and the hybrid colonial state. The American Indian Quarterly. 2009; 33(3):325–351.
- Bartlett C, Marshall M, Marshall A. Two-eyed seeing and other lessons learned within a co-learning journey of bringing together Indigenous and mainstream knowledges and ways of knowing. Journal of Environmental Studies. 2012; 2:331–340.
- Bevir, M. Key concepts in governance. London: Sage Publications Ltd; 2009.
- Blackstock, C., Cross, T., George, J., Brown, I., Formsma, J. Reconciliation in child welfare:
 Touchstones of hope for Indigenous children, youth, and families. Ontario: National Indian Child
 Welfare Association; 2006. Retrieved from http://www.fncaringsociety.com/sites/default/files/docs/
 Touchstones_of_Hope.pdf
- Blaut, JM. The colonizer's model of the world: Geographical diffusionism and Eurocentric history. New York: Guilford; 1993.
- Brant Castellano M. Ethics of Aboriginal research. Journal of Aboriginal Health. 2004; 1(1):98-114.
- Canadian Institutes of Health Research (CIHR), Institute of Aboriginal Peoples' Health. Aboriginal peoples' wellness in Canada: Scaling up the knowledge. Cultural context and community aspirations. 2011. Retrieved from http://www.integrativescience.ca/uploads/activities/IAPH-Two-Eyed-Seeing-Integrative-Science.pdf
- Clark, ME. In search of human nature. London and New York: Routledge; 2002.
- Cleary, LM. Cross-cultural research with integrity. Collected wisdom from researchers in social settings. London: Palgrave and Macmillan; 2013.
- Corntassel J, Chaw-win-is, T'lakwadzi. Indigenous storytelling, truth-telling, and community approaches to reconciliation. English Studies in Canada. 2009; 35(1):137–159.
- Coulthard G. Subjects of empire: Indigenous peoples and the politics of recognition in Canada. Contemporary Political Theory. 2007; 6:437–460.
- Dell C, Seguin M, Hopkins C, Tempier R, Duncan R, Dell D, Mehl-Madrona L, Mosier K. From benzos to berries: How treatment offered at an Aboriginal youth solvent abuse treatment centre highlights the important role of culture. Canadian Journal of Psychiatry. 2011; 56(2):75–83. [PubMed: 21333034]
- Demers, J. Warehousing prisoners in Saskatchewan. A public health approach. Regina: Canadian Centre for Policy Alternatives; 2014. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/Saskatchewan%20Office/2014/10/warehousing_prisoners_in_saskatchewan.pdf
- Doerfler, J.Stark, HK., Niigaanwewidam, JS., editors. Centering Anishinaabeg Studies. Lansing: Michigan State University; 2013. Bagijige: Making an offering.
- Ermine, W., Sinclair, R., Jeffery, B. The ethics of research involving Indigenous peoples. Report of the Indigenous peoples' Health Research Centre to the Interagency Advisory Panel on Research Ethics. Saskatchewan: Indigenous Peoples' Health Research Centre; 2004. Retrieved from http://ahrnets.ca/files/2010/05/ethics_review_iphrc.pdf
- Ferreira MP, Gendron F. Community-based participatory research with traditional and Indigenous communities of the Americas: Historical context and future directions. International Journal of Critical Pedagogy. 2011; 3(3):153–168.
- First Nations Information Governance Centre (FNIGC). The First Nations principles of OCAPTM. 2013. Retrieved from http://www.fnigc.ca/ocap.html
- Gough, P., Trocme, N., Brown, I., Knoke, D., Blackstock, C. Pathways to the overrepresentation of Aboriginal children in care. Ontario: Centre of Excellence for Child Welfare; 2005. Retrieved from http://cwrp.ca/sites/default/files/publications/en/AboriginalChildren23E.pdf
- Graham P. Environmental scans. How useful are they for primary care research? Canadian Family Physician. 2008; 54(7):1022–1023. [PubMed: 18625830]
- Hansen, JG., Antsanen, R. Consolidating Indigenous power: The 'Idle No More' movement. In: Hansen, JG., editor. Exploring Indigenous social justice. British Columbia: J Charlton Publishing Ltd; 2014. p. 249-264.

Hopkins, C., Dumont, J. Discussion Paper prepared by Carol Hopkins and James Dumont for the Mental Health and Addictions Division. Ottawa: Community Programs Directorate, First Nations and Inuit Health Branch, Health Canada; 2010. Cultural healing practice within national Native alcohol and drug abuse program/youth solvent addiction program services.

- Iwama M, Marshall M, Marshall A, Bartlett C. Two-eyed seeing and the language of healing in community-based research. Canadian Journal of Native Education. 2009; 32(2):3–23.
- Karabeg, D., Lachica, R. Knowledge federation as a principle of social organization of knowledge creation and sharing. Proceedings of the First International Workshop on Knowledge Federation; Dubrovnik, Croatia. October 20–22, 2008; 2008.
- Kirmayer, LJ., Valiskakis, GG., editors. Healing Traditions. The Mental Health of Aboriginal Peoples in Canada. Vancouver: UBC Press; 2009.
- Kirmayer LJ, Simpson C, Cargo M. Healing traditions: Culture, community and mental health promotion with Canadian Aboriginal peoples. Australian Psychiatry. 2003; 11:15–23.
- Kovach, M. Indigenous methodologies—Characteristics, conversations, and contexts. Toronto: University of Toronto Press; 2009.
- Mann, BA. Native Americans, archaeologists, and the mounds. In: Hoffman, EH., Nelson, MA., editors. American Indian Studies. Vol. 14. New York: Peter Lang International Academic Publishers; 2003.
- Mann, CC. 1491. New revelations of the Americas before Columbus. USA: Vintage; 2011.
- Masaquiza, M. Indigenous people, Indigenous voices. Fact sheet. Who are Indigenous peoples?. n.d. Retrieved from http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf
- McIvor O, Napoleon A, Dickie KM. Language and culture as protective factors for at risk communities. Journal of Aboriginal Health. 2009; 5(1):6–25.
- Minkler, M. Community organizing and community building in health. USA: Rutgers University Press; 1997.
- Monture, P. Journeying forward: Dreaming First Nations' independence. Halifax: Fernwood Publishing; 1999.
- Mushquash C, Comeau MN, McLeod B, Stewart S. A four-stage method for developing early interventions for alcohol among Aboriginal adolescents. International Journal of Mental Health and Addiction. 2010; 8(2):296–309.
- Nagel, J. American Indian ethnic renewal: Red power and the resurgence of identity and culture. Oxford: Oxford University Press; 1997.
- National Aboriginal Health Organization (NAHO). Ownership, control, access and possession (OCAP) or self-determination applied to research. A critical analysis of contemporary First Nations research and some options for First Nations communities. Ottawa: First Nations Centre; 2005.
- National Native Addictions Partnership Foundation (NNAPF), Assembly of First Nations (AFC), & Health Canada. Honouring our strengths: A renewed framework to address substance use issues among First Nations in Canada. Muskoday: Author; 2011.
- Peat, FD. Blackfoot physics: A journey into the Native American worldview. USA: Phanes Press; 2002.
- Regan, P. Unsettling the settler within. Residential schools, truth telling, and reconciliation in Canada. Vancouver: UBC Press; 2010.
- Sheridan J, Longboat D. The Haudenosaunee imagination and the ecology of the sacred. Space and Culture. 2006; 9(4):365–381. DOI: 10.1177/1206331206292503
- Simpson, L. Dancing on our turtle's back. Stories of Nishnaabeg re-creation, resurgence and a new emergence. Winnipeg: Arbeiter Ring Publishing; 2011.
- Smith, L. Decolonizing methodologies. Research and Indigenous peoples. London: Zed Books; 1999.
- Smith, L. Decolonizing methodologies: Research and Indigenous peoples. 2. London and New York: Zed Books; 2012.
- Snively G, Corsiglia J. Discovering Indigenous science: Implications for science education. Science Education. 2000; 85:6–34. Retrieved from http://onlinelibrary.wiley.com/store/
 10.1002/1098-237X(200101)85:1%3C6::AID-SCE3%3E3.0.CO;2R/asset/3_ftp.pdf?
 v=1&t=i2oxky2f&s=29a05a2da693f41384924c7d4dbf4a39ee768f92.

Tait CL. Ethical programming towards a community-centered approach to mental health and addiction programming in Aboriginal communities. Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health. 2008; 6(1):29–60.

- Tuck E, Yang KW. Decolonization is not a metaphor. Decolonization: Indigeneity, Education & Society. 2012; 1(1):1–40.
- Weatherford, J. Indian givers: How the Indians of the Americas transformed the world. New York: Fawcett Columbine; 1988.
- Wilson, S. Research is ceremony. Indigenous research methods. Halifax: Fernwood Publishing; 2008.
- Winder N. Integrative research as appreciative system. Systems Research and Behavioral Science. 2005; 22:299–309.