

Two-Eyed Seeing: Current approaches, and discussion of medical applications

A review of which Indigenous health care themes are present in Western medical literature.

Tristan Jeffery, BSc, Donna L.M. Kurtz, RN, PhD, Charlotte Ann Jones, PhD, MD, FRCPC

ABSTRACT: Two-Eyed Seeing is an approach of inquiry and solutions in which people come together to view the world through an Indigenous lens with one eye (perspective), while the other eye sees through a Western lens. It has been used in a variety of Indigenous-partnered research projects, but little information exists about Two-Eyed Seeing approaches in medical research. A focused narrative review of peer-reviewed Western literature was conducted to identify principles of Two-Eyed Seeing applications. Medline, Web of Science, and CAB Direct were searched and papers that described Two-Eyed Seeing approaches in Indigenous-partnered research projects were selected for review. Relationship building, community control, collaborative data analysis, and results that fostered change were recognized as common principles for successful application of Two-Eyed Seeing. Medical researchers must be aware of relational and community-involved processes while conducting research with Indigenous communities.

Background

Indigenous knowledge is shaped by the environment and land. Emotional, spiritual, and physical relationships with the natural world influence traditions and customs.¹ Ties to the

natural world also influence perspectives on research. There are multiple Indigenous perspectives on research, often relational, being inclusive of people's experiences, spirituality, and culture. Western perspectives about research focus on interpretation of concrete facts and understanding the world, with little attention to emotional or spiritual realms.¹

Two-Eyed Seeing developed from the teachings of Chief Charles Labrador of Acadia First Nation, but Mi'kmaq Elder Albert Marshall of the Eskasoni First Nation was the first to apply the concept of Two-Eyed Seeing in a Western setting.² Specifically, Two-Eyed Seeing "refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to use both of these eyes together for the benefit of all."² Elder Albert Marshall emphasizes that Two-Eyed Seeing requires groups to weave between each respective way of knowing, as Indigenous knowledge may be more applicable than Western in certain situations and vice versa.² It brings together two ways of knowing to allow a diverse group of people to use all understandings to improve the world.

Originally developed as a grassroots program to encourage Mi'kmaq postsecondary students to pursue science education,² Two-Eyed Seeing has since been used in research projects with Indigenous people across a variety of disciplines, but applications vary between groups. Further, there is little information about Two-Eyed Seeing approaches in medical research. The aim of this article is to discover and review which Indigenous health care themes are present in Western medical literature.

Methods

We performed a focused narrative review of peer-reviewed literature using the following key concepts, as decided by consensus among the three authors: Indigenous people, implementation science, and the Two-Eyed Seeing approach. Each key concept was a combination of search and MeSH terms to create search strings. (Refer to the **Box** on the following page for complete search strategies.) All searches had no restrictions on publication country or language. Sources used for this narrative review included Medline, Web of Science, and CAB Direct. Hand searches of the references of retrieved literature were also conducted.

Eight themes were identified from the literature:

- The need to declare author positionality.
- Communication of group interpretations and guiding principles.
- Relationship building.
- Inclusion of Indigenous advisory committees and Knowledge Holders.
- Continued community guidance.
- Use of traditional knowledge gathering techniques.
- Collaborative community-involved data analysis and interpretation.
- Making meaningful and lasting relationships.

Themes were described if the paper referenced Two-Eyed Seeing, Indigenous methodologies, or community-based research in the abstract or title and the theme was presented in at least two papers identified in our search. We excluded all randomized control trials and studies with youth or children.

Mr Jeffery is a student in the Faculty of Medicine at the University of British Columbia (class of 2023). Dr Kurtz is an associate professor in the UBC School of Nursing and an Indigenous liaison in the Faculty of Health and Social Development at UBC's Okanagan campus. Dr Jones is an associate professor of medicine in the Southern Medical Program at UBC's Okanagan campus.

This article has been peer reviewed.

Key concepts

Indigenous people

Search terms: Indigenous, Aboriginal, Native American, Native Indian, First Nations, Métis, Inuit, Torres Strait Islander, Māori.
MeSH terms: Indigenous Peoples/, American Indian/, Indigenous Canadians/, Inuits/, Oceanic Ancestry Group/, American Native Continental Ancestry Group/.

Implementation science

Search terms: design, plan, create, implement.
MeSH terms: N/A

Two-Eyed Seeing approach

Search terms: Traditional medicine, Two-Eyed Seeing, culturally appropriate, Indigenous ways of knowing, Indigenous research methods, culture-based approaches.

MeSH terms: Complex interventions/, Medicine, traditional/.
(All search terms and MeSH terms were combined with the Boolean operator “or” to create key concept-specific search strings.)

Results and discussion

Author positionality

Author positionality statements are common practice for researchers working with Indigenous communities.³⁻¹¹ Author positionality statements are brief descriptions of a researcher’s ancestry, who they are, and where they came from. They outline intent and situatedness. Researchers create a space for introductions and provide indications of the influence that the author’s epistemology has on the study.^{10,12} Author positionality can be described as the idea of “research in relation”:¹² researchers need to define their work in terms of personal experiences, families, and communities. It is the first step to building relationships and forming trust; the community will be able to understand the researcher’s world view, beliefs, and values.

Group interpretations and guiding principles

When working with an Indigenous community, research groups described their interpretation of Two-Eyed Seeing.^{3-6,8-11,13-16} One group’s interpretations led to the creation of principles that guided their Two-Eyed Seeing approach. The first authors from two studies used knowledge from their Indigenous ancestry to apply Two-Eyed Seeing.^{8,9} For example, *Anishinaabe Mino-Bimaadiziwin* (“Relationships tie us to everything”) guided the study design and procedures for an Indigenous researcher conducting research with a First Nation community in Ontario.⁸ Non-Indigenous authors also described their epistemology and how it influenced their interpretation of Two-Eyed Seeing.^{3,4} For example, one team defined the research group’s collective understanding of the need for research, that colonialism is an underlying cause of problematic substance abuse in Indigenous people, and that traditional culture is key to healing.⁴

The concept of the four Rs was discussed as a guiding principle in their application of Two-Eyed Seeing.^{5,8,10,11} The four Rs are respect, relevance, reciprocity, and responsibility; together, they are ethical considerations for research groups who work with Indigenous peoples.¹⁷ Respect reflects how researchers must create an environment where research is mutually empowering of both Indigenous and Western perspectives. Relevance describes research being in line with the beliefs and priorities of the partnered community. Reciprocity is research that benefits both the Indigenous community and the research group. Responsibility is the necessity to privilege Indigenous voices and be supportive of Indigenous people’s rights to self-determination.¹⁷

Relationship building

It is essential for research groups to establish relationships with partnering communities during the inception of a study.^{3-11,15,16} Participants from Indigenous health organizations in Ontario found that building trusting relationships and promoting respect for local knowledge were crucial steps in any successful partnership.¹⁵ Research groups developed relationships with Elders of the partnering communities. Elders

are seen as holders of Indigenous knowledge who play vital roles in helping ensure traditional protocols are followed and sacred knowledge remains protected over the course of a study. Other groups would meet with community stakeholders and form relationships to understand community-identified goals and needs. This created collaborative partnerships and implementation of a research project that was important to both the Indigenous community and the research group (reciprocity). Further, it was common to have members of the research group interact with the community outside of the research context, building safe and trustworthy relationships between people through ceremony and community activities.^{4,7,10} Other authors described the use of an ethical space,^{5,11,14,16} a concept that allows multiple ways of knowing to co-exist. This theoretical space is where open discussions can occur. Groups may discuss their cultural practices and ways of knowing, bridging the research intentions, values, and assumptions of both groups.¹⁸ Ultimately, the goal of early relationship building was to develop trust, provide a safe space for both groups to explain their epistemology, and create a collective understanding of community needs and research needs.

Indigenous advisory committee/ Knowledge Holders

Creation of either an Indigenous advisory committee or a group of Indigenous Knowledge Holders occurred at the beginning of some studies to provide cultural context and guidance.^{3-5,7-9,15} Committees consisted of community members, representatives, Indigenous Knowledge Holders, and researchers. The committees provided cultural support and guidance to partnered researchers and ensured traditional protocols were followed. In some cases, advisory committees were responsible for approving ethics protocols and procedures. It was common to have an Indigenous ethics board or advisory committee review the studies and provide their approval in addition to institutional ethics approvals from universities.^{3,5-11,14-16} Indigenous ethics boards were Indigenous university research ethics committees or ethics boards created by Indigenous organizations. Other groups did not create Indigenous advisory committees



Sharing circles emphasize problem solving and are intended to provide an opportunity for emotional openness and disclosure of feelings.

but used Indigenous Knowledge Holders who held the same responsibilities.^{6,10,11} Indigenous Knowledge Holders were chosen by the partnered Indigenous community. These individuals were usually Elders, but occasionally they were select groups of respected Indigenous community members. Indigenous advisory committees or Knowledge Holders ensured the cultural context was reflected from project inception to result dissemination.

Community guidance

Continual community involvement was a defining feature of a Two-Eyed Seeing approach.^{3-11,13-16} Indigenous community involvement centred on ensuring research groups were accountable and collaborative with the partnering community. Accountability was described as everything from involving the partnering Indigenous community in developing the research

question to sharing results,⁸ while collaboration was defined as providing a safe space for discussion and removing any power imbalances or biases.^{10,13,14} Community involvement included community control over study design and frequent discussions with the research group to ensure the study aligned with community values, needs, and protocols. It was evident that research groups must acknowledge and respect inclusion of partnering community members' knowledge and be ready to engage in conversations regarding the virtues and values of the research. These discussions highlight the project outcomes each partner expects and, more importantly, ensure community preferences lead the research.¹⁶

It was expected to see Elders influence study design. For instance, Elders suggested the use of certain qualitative methods, knowing that local approaches (within doing) not only resonate

with community members, but also demonstrate sharing of ideas and power within a Two-Eyed Seeing approach.¹⁶ Other communities introduced their specific and relevant ideas to the research groups, helping promote community beliefs and values.⁴ For example, the concept of knowledge gardening (seeding, nurturing, and growing information) was important to overcome the limitations of Western research-grant time frames and to create a culturally rooted analysis, which resonated with the partnering communities' cultural views.²

Traditional techniques

Research groups often used particular ways to gather traditional knowledge when working with Indigenous communities. Sharing circles were the most frequently used knowledge gathering method.^{4,6-9} Sharing circles are an Indigenous healing tool that differ from

group discussions or focus groups as they have sacred meanings in many Indigenous cultures.⁶ Guided by a facilitator with Indigenous knowledge, all participants in the circle are viewed as equal, with their information, spirituality, and emotionality shared between circle members. Sharing circles emphasize problem solving and are intended to provide an opportunity for emotional openness and disclosure of feelings. Sharing circles used in the studies were accompanied by cultural practices: prayers, Elder support, passage of sacred herbs, smudging, and the use of drums and songs.^{4,6-9} Other studies used Western interviewing techniques, such as individual semi-structured interviews, but used traditional knowledge to influence the interviews.^{3,11} For instance, two authors used a traditional Anishinaabe symbol-based approach to include reflections in their study, one as part of their semi-structured interview,³ the other as part of their sharing circles.⁶ This type of Indigenous circle ceremony offered participants time to reflect on a concept, such as their personal identity or community strengths, and then choose a symbol that represented the concept to them. This process is spiritual, and participants could present their symbol to the group, providing a space for reflection of the chosen concept.

Reciprocity, one of the four Rs, is present in multiple aspects of traditional knowledge gathering.^{4-8,11,15} Reciprocity included providing participants space to share their stories. Researchers were able to better understand and begin to develop a Two-Eyed Seeing perspective by listening to Indigenous community members' personal experiences. Participants' stories were presented to communities to encourage motivation for health and wellness change. Reciprocity is also culturally and ethically necessary, as a protocol, to acknowledge participant contributions; the acknowledgments can be gifts or sacred medicines like tobacco or monetary honorariums.¹⁵ Thus, groups often provided participants with gifts to honor the sharing of their knowledge and their time spent meeting together. The community provided reciprocity to the research group in the form of ceremonies, prayers for their wellness, and sacred foods.

Learning from a Two-Eyed Seeing approach (community data analysis)

Unlike Western data analysis research practices, a Two-Eyed Seeing approach emphasizes community and participant involvement.^{3,4,6-11} Elders and Indigenous advisory committees frequently guided data analysis. They provided a cultural context to ensure the information generated was helpful to the community and the data were not misinterpreted to benefit the researcher's agenda.^{3,4,6-11}

Ethical research processes ensured the information gathered through discussions in sharing circles was not misinterpreted by providing opportunities for sharing-circle participants to review the analyzed data and provide feedback.^{3,6-10} Research groups were expected to initiate and validate stories told in sharing circles, as stated in community-created protocols. Researchers analyzed recordings of interviews and presented summaries to participants during meetings, which provided opportunities for participants to change or add to their stories. As well, according to doing research with Indigenous communities and protection of intellectual property, researchers must verify all generated knowledge with the partnered communities before it is released to the research group.¹⁰ It is common for traditional knowledge to be misunderstood or taken out of context and for it to lose its original meaning. Further, researchers are responsible to give ownership of all knowledge generated from a study to the partnered community and to ask for permission about how, when, and with whom they may share the knowledge, as well as permission for any future use of the knowledge in papers or presentations.¹⁰ As the Indigenous community owns all generated knowledge, it is their decision what happens to the knowledge, from storage to destruction. Since partner communities own the knowledge shared and generated through research, research groups cannot prevent revisions or destruction of already generated data if the priorities of the community change.¹⁰

Making meaningful and lasting relationships

Two-Eyed Seeing approaches place importance on proper knowledge dissemination and continuation of relationships with the partnering

communities.^{6-8,15,16} Historically, research involving Indigenous communities followed a helicopter approach: arrival, data collection, and departure,⁸ taking information away from the community without honoring a four-Rs approach. Communities had no idea what the collected data was used for, by whom, for what purposes, or the research group's interpretations. Two-Eyed Seeing approaches emphasize sharing the final report with the community and presenting findings in a meaningful way so the information is beneficial to making a change within the community.^{7,8} Further, knowledge gathered from Indigenous research should allow for the collective story of the Indigenous community to be presented with Indigenous people involved, to ensure Indigenous knowledge is not altered or conformed to Western ways of thinking. Groups are accountable throughout the research process to ensuring the initial community needs and cultural values agreed on during development of the project remain present through the whole process. This can be accomplished through community-led projects.^{4,10}

All studies described how research teams should expect to continue their relationships with the community after the project is done. Some authors suggested that the relationships with the partnering community should extend beyond the final report and become a lifelong commitment.⁶ Long-term relationships reflect the respect and responsibility components of the four Rs, as research groups must continue to support partnered Indigenous communities (responsibility) and continue to help empower the community (respect). Further, Two-Eyed Seeing places importance on relationship building—a relationship that is not confined to study timelines. After completion of the study, research groups should set up systems with the partnered community to remain accountable to and reachable by community partners.

Two-Eyed Seeing within medical research

Medical research groups that are partnered with Indigenous communities can incorporate all eight themes to create a collaborative research process that ensures successful relationships. The first step is for the research group to form a relationship with the Indigenous community and begin the trust-building process. Each research

group member must provide an in-person positionality statement describing who they are, where they came from, and their ancestry. Research groups will also need to spend time with the community outside of research activities, developing trusting and respectful relationships. To guide the study, the research team and Indigenous community must define their interpretation of Two-Eyed Seeing and the principles that resonate with each partner. This is a collaborative process, one in which power imbalances are removed and there is respect for everyone's opinions, perspectives, values, and beliefs. Continual community involvement and the creation of an Indigenous Advisory Committee are essential. Research groups will not usually have knowledge of traditional practices or beliefs. Advisory committees provide cultural context and ensure community input is heard and local protocols adhered to. Further, research groups are expected to listen to community members outside of the advisory committee. It is imperative for Elders to speak directly with researchers to provide input and guide the study. Researchers should be aware of traditional knowledge gathering and cultural practices. Successful studies will either use traditional knowledge gathering methods or merge them with Western qualitative methods, as it creates a culturally safe study—for instance, the use of sharing circles as a qualitative method when interviewing Indigenous community members instead of Western focus groups. Study participants should be given the chance to review collected data to ensure validity and that their stories were not altered. Finally, research groups need to ensure study findings are disseminated back to the community in a meaningful way and set up methods for lasting relationships with the community.

Conclusion

This narrative review provides an overview on perspectives and application of a Two-Eyed Seeing approach when working with Indigenous communities. Two-Eyed Seeing brings together Indigenous and Western world views. The guiding principles of Two-Eyed Seeing, as it relates to research, revolve around relationships and the four Rs. Clear principles have been highlighted, which emphasize relationship

building; equal power balances in the partnership; and research that is culturally safe, respectful, and reflective of Indigenous values and self-determination. While there is still a relative lack of published literature on Two-Eyed Seeing in research studies, the common principles found in this review can provide a starting point for future researchers to begin to understand Two-Eyed Seeing. However, a Two-Eyed See-

Researchers are responsible to give ownership of all knowledge generated from a study to the partnered community and to ask for permission about how, when, and with whom they may share the knowledge.

ing approach cannot be generalized or formulated. This approach will be unique to the Indigenous community based on their beliefs, cultural traditions, collective knowledge system, and relationship with research group partners. Ultimately, research groups need to understand that research with Indigenous populations requires taking time to create a trusted, respectful, and ethical friendship in which problems can be identified and approached together, rather than based on a Western view of researchers coming into a community to solve their problems for them. ■

Competing interests

None declared.

References

1. Cardinal L. What is an Indigenous perspective? *Can J Native Educ* 2001;25:180-182.
2. 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. *J Environ Stud Sci* 2012;2:331-340.
3. Carter C, Lapum J, Lavallée L, et al. Urban First Nations men: Narratives of positive identity and implications for

4. Hall L, Dell CA, Fornssler B, et al. Research as cultural renewal: Applying Two-Eyed Seeing in a research project about cultural interventions in First Nations addictions treatment. *Int Indig Policy J* 2015;6:1-15.
5. Jull J, Morton-Ninomiya M, Compton I, Picard A. Fostering the conduct of ethical and equitable research practices: The imperative for integrated knowledge translation in research conducted by and with Indigenous community members. *Res Invol Engagem* 2018; 4:45.
6. Lavallée LF. Practical application of an Indigenous research framework and two qualitative Indigenous research methods: Sharing circles and Anishnaabe symbol-based reflection. *Int J Qual Methods* 2009;8:21-40.
7. Marsh TN, Cote-Meek S, Toulouse P, et al. The application of Two-Eyed Seeing decolonizing methodology in qualitative and quantitative research for the treatment of intergenerational trauma and substance use disorders. *Int J Qual Methods* 2015;14.
8. Peltier C. An application of Two-Eyed Seeing: Indigenous research methods with participatory action research. *Int J Qual Methods* 2018;17.
9. Rand JR. Inuit women's stories of strength: Informing Inuit community-based HIV and STI prevention and sexual health promotion programming. *Int J Circumpolar Health* 2016;75:32135.
10. Reid B. Positionality and research: "Two-Eyed Seeing" with a rural Ktaqmkuk Mi'kmaw community. *Int J Qual Methods* 2020;19.
11. Wright AL, Gabel C, Bomberry R, Walhoush O. An application of Two-Eyed Seeing to community-engaged research with Indigenous mothers. *Int J Qual Methods* 2019;18.
12. Kovach M. Indigenous methodologies: Characteristics, conversations and contexts. Toronto, CA: University of Toronto Press; 2009. p. 109-120.
13. Cyr M, Riediger N. (Re)claiming our bodies using a Two-Eyed Seeing approach: Health-At-Every-Size (HAES®) and Indigenous knowledge. *Can J Public Health* 2021; 112:493-497.
14. Hovey RB, Delormier T, McComber AM, et al. Enhancing Indigenous health promotion research through Two-Eyed Seeing: A hermeneutic relational process. *Qual Health Res* 2017;27:1278-1287.
15. Maar MA, Lightfoot NE, Sutherland ME, et al. Thinking outside the box: Aboriginal people's suggestions for conducting health studies with Aboriginal communities. *Public Health* 2011;125:747-753.
16. Whiting C, Cavers S, Bassendowski S, Petrucka P. Using Two-Eyed Seeing to explore interagency collaboration. *Can J Nurs Res* 2018;50:133-144.
17. Kirkness VJ, Barnhardt R. First Nations and higher education: The four R's — respect, relevance, reciprocity, responsibility. *J Am Indian Educ* 1991;30:1-15.
18. Ermine W, Sinclair R, Jeffery B. Indigenous Peoples' Health Research Centre. The ethics of research involving Indigenous peoples: Report of the Indigenous Peoples' Health Research Centre to the Interagency Advisory Panel on Research Ethics. Saskatoon, CA: Indigenous Peoples' Health Research Centre; 2004. p. 19-21.