Métis Community Perspectives Inform a School-based Health Promotion Intervention Using Participatory Action Research

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Abstract Indigenous children in Canada have an increased risk of developing chronic conditions compared with the general Canadian population. There is limited understanding of the design of Comprehensive School Health (CSH) interventions to support health and wellness among Métis children. Comprehensive School Health (CSH) frameworks and interventions focus on supporting whole school and classroom environments and actions to promoting holistic health and well-being for children. This paper highlights experiences of a participatory action research (PAR) project engaging Métis community members to inform the design of a Métis comprehensive school health intervention. Findings highlight the process of enacting participatory action research in a Métis community while revealing Métis community priorities to inform a comprehensive school health intervention. We demonstrate a participatory approach to integrating Métis knowledge throughout the research process. We anticipate findings will be relevant to researchers, health care professionals, and community knowledge users working collaboratively to design health promoting interventions for the health and wellbeing of other Métis communities.

KeyWords Métis health; health promotion; wellbeing; participatory action research; community engagement

Indigenous (First Nations, Inuit, Métis)[1] (Indian and Northern Affairs Canada, 2004) children living in Canada have an increased risk of developing chronic conditions such as obesity and diabetes (Cooke, Wilk, Paul, &

[1] "Aboriginal" populations in Canada are made up of three distinct groups including First Nations, Inuit, and Métis as recognized by the Constitution Act of Canada (1982). "Indigenous" is a collective term inclusive of Indigenous peoples globally and is broader than the Constitutional and legal definitions. We will use the term "Indigenous" when referring to any Aboriginal group and "Aboriginal" in relation to the literature, but we will use the term Métis and First Nations when possible when referring to those populations respectively.

Gonneville, 2013; Dyck, Osgood, Gao, & Stang, 2012 ; Willows, Hanley, & Delormier, 2012) when compared with the general Canadian population. Approximately 32% of the Indigenous Peoples in Canada identify as Métis (Statistics Canada, 2013) and a recent report indicates that 18.5% and 14.4% of Métis boys and girls, respectively, experience obesity (Cooke et al., 2013). Very little is currently known about health promoting initiatives taking place within a Métis context to address these health inequities. The Métis are among the most under-researched of Indigenous peoples in Canada (Bruce, Kliewer, Young, Mayer, & Wajda, 2003; Furgal, Garvin, & Jardine, 2010; Health Council of Canada, 2013; Kumar, Wesche, & McGuire, 2012; Wilson & Young, 2008), pointing to a need to expand on health promotion intervention research specific to this population.

Schools have the potential to act as healthy settings that promote both physical activity and healthy eating for numerous children, their families, and the greater community (Pan Canadian Joint Consortium for School Health, 2010; Story, Kaphingst, Robinson-O'Brien, & Glanz, 2008; Tran, Ohinmaa, Kuhle, Johnson, & Veugelers, 2014; Veugelers & Schwartz, 2010). Implementation of comprehensive school health (CSH) interventions in non-Indigenous contexts have incorporated school and community values in programming and have had strong influences on children's health outcomes (Naylor, Macdonald, Zebedee, Reed, & McKay, 2006; Veugelers & Fitzgerald, 2005).[2] In an Indigenous context, there have been select First Nations communities who have successfully implemented comprehensive school health-based interventions, two of which continue to stand out as leaders in this field. These include the Kahnawake Diabetes Prevention Program in the Mohawk community of Kahnawake, QC (Macaulay et al., 1997; Paradis et al., 2005) and the other is the Sandy Lake Diabetes Prevention Program in the Oji-Cree community of Sandy Lake, ON (Kakekagumick et al., 2013; Saksvig et al., 2005). The successes of both the Sandy Lake and the Kahnawake diabetes prevention programs have been attributed to the participatory methods that framed these research programs, where First Nations community members were actively engaged and involved in all steps of the research process including the development and design of programming (Kakekagumick et al., 2013; Macaulay et al., 1997; Potvin, Cargo, McComber, Delormier, & Macaulay, 2003; Saksvig et al., 2005). These interventions were developed collaboratively to ensure culturally safe and relevant values, themes, and activities were integrated into programming (Macaulay et al., 1997; McComber et al., 1998; Potvin et al., 2003). In this way, the holistic health needs of First Nations children were supported and nurtured thereby increasing their chances of optimal health and wellbeing. Although these programs have been successful in promoting health among First Nations

[2] Comprehensive school health (CSH) ensures that school staff, parents, community stakeholders, and students work together to integrate supportive school- and community-specific health policies, programs, and environments in order to promote health (Veugelers & Schwartz 2010)

children, we do not currently know whether the successes from these First Nations-specific programs can be scaled up and adapted into a Métis community and context.

Implementation science explores ways in which promising or effective health promoting interventions, such as those implemented in Kahnawake or Sandy Lake, are adapted and scaled up to be implemented into other communities (Wiltsey Stirman et al., 2012). Within the context of Indigenous communities in Canada, there is tremendous diversity among and between First Nations communities as well as between First Nations and Métis communities. Therefore in order to identify, adapt, modify, and implement health promotion programming from a First Nations into a Métis context requires substantial community engagement in order to appropriately adapt programming to fit the unique needs of the Métis community (Glasgow, Brownson, & Kessler, 2013; Novins et al., 2011).

Community engagement is the basis for participatory action research (PAR) where the participation of community members and organizations in the research process is critical to project success. PAR is centred on bringing knowledge and action together for the benefit and improvement of a community's health and wellbeing, thereby eliminating health disparities (Minkler & Wallerstein, 2008). Those individuals who are involved in the research process also collaborate to define the research project goals and intervention design (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014). This way of approaching research is an attempt to negotiate researcher-community relations in a respectful, relevant, and mutually responsible way (Canadian Institutes of Health Research et al., 2014). This form of research that emphasizes community engagement and participation has been increasingly accepted in research projects involving Indigenous communities (Canadian Institutes of Health Research et al., 2014; Smylie et al., 2004). PAR allows a negotiation of information and practices from two worlds, western and Indigenous, which are often not balanced in research or practice. Unfortunately, Indigenous peoples are commonly forced to integrate their worldviews into western concepts of health, research, and intervention design (Blackstock, 2007, 2009). Participatory action research attempts to address this imbalance by emphasizing and integrating the strengths and expertise of community with those of the academic researchers thereby bringing two distinct worldviews together, a strength-based approach defined by Mi'kmaq Elder Albert Marshall as a two-eyed way of seeing (Marshall, 2008). Critical, thoughtful action is a major attribute of PAR where information is collected and new knowledge is collaboratively developed and applied through action (Kemmis & McTaggart, 2000; Stringer & Genat, 2004). The action portion of the research methodology seeks local understandings relevant to the participant community.

There have been no identified comprehensive school health interventions implemented within a Métis context in Canada using PAR, further emphasizing the need for developing, implementing, and evaluating Métis-specific programming (Kumar et al., 2012; Ning & Wilson, 2012). The purpose of this paper is to highlight the findings

and experiences from the first stages of a PAR project that actively engaged both Métis adults and children to share their perceptions of elements important in designing a Métis-specific CSH intervention. We raise awareness of the experiences of applying PAR in partnership with this northern SK Métis community. We highlight how Métis priorities were integrated through PAR to honour Métis worldviews while building on best practices in CSH intervention research from Western and First Nations contexts. The findings from this phase of the project directly informed the development and subsequent implementation of a Métis culture-based CSH intervention in a northern SK Métis community. We anticipate that this paper will be useful to researchers, health care professionals, and community knowledge users interested in working collaboratively to design health-promoting interventions in other Métis communities.

Methods

Setting

This research project took place in a remote northern Saskatchewan Métis community, Île-à-la-Crosse, Saskatchewan, Canada. The community is located in the northwest corner of the province and was first established in 1776 as an outpost for fur traders. As French Canadian, English, and Scottish traders established themselves in this region, they developed intimate and long-lasting relationships with local First Nations women, thereby creating the Métis population and community in the region (MacDougall, 2006). Currently the majority of the residents in Île-à-la-Crosse are Métis who have a deep-rooted history and connection to their land (MacDougall, 2006) and continue to celebrate their Michif language and culture through various community events. Of the approximately 1,341 residents in Île-à-la-Crosse, 1,095 individuals identified as Métis (Statistics Canada, 2008).

Participants & Focus Group Discussion

Community input into the design of the CSH interventions was drawn from the community coordinator, the community advisory team, as well as focus group discussions with adults and children. The community research coordinator and community advisory team helped identify and recruit community members potentially interested in sharing their perspectives in designing a CSH intervention and provided informal input into CSH priorities through conversations with academic team members thus acting as both participants and advisors guiding the project. The academic researchers maintained field notes to capture elements of these conversations. Adult participants were recruited via convenient sampling of key community stakeholders (such as parents, teachers, health care professionals, Elders) known to be very involved with the children living in the community. The community research coordinator recommended potential participants and verbal and written invitations to participate were sent out to specific individuals. Opportunistic sampling during the field work

allowed for flexibility of inviting unexpected or unanticipated community members to participate in the project (Creswell, 2007). The adult focus group discussion (n=8) lasting approximately 60 minutes was guided by a broad semi-structured interview guide focusing on the successes and gaps related to physical activity and healthy eating in the community, while allowing for open-ended discussion among participants. Before this, the interview guide was shared with the community research team for review and enhancement. For example, instead of using the term *traditional foods* or the term *traditional* in reference to Métis foods and cultural activities, the community recommended the term *local* or the specific use of the term *Métis*. Consensus on terminology, language, and questions was achieved between community and academic team members. In this way, every attempt was made to acknowledge the differences in language and culture, to enhance our awareness of the different meanings portrayed through language and terminology. Respect for differences in worldviews between Métis community members and academic team members was demonstrated in this way.

Participating children were recruited from the Grade 3-4 split class. Their homeroom teacher spoke to each student and sent a note home to their parents/guardians explaining that our research team was interested in asking them a few questions about their experiences with physical activity and healthy eating in the community. Letters of invite were sent home with all students in this class for their parents/caregivers to read and discuss with their child. Children who provided parental consent and their own assent to participate were involved in this phase of the project. The focus group conducted with seven children lasted 30 minutes and was held during school hours in a spare classroom. Focus groups were adapted for use with children by decreasing the length of the discussion (from 60 minutes to 30 minutes), asking up to four broad questions (instead of eight), and giving young participants time to write down their thoughts related to broad interview questions before discussing them.

Ethics and Consent

Approval for the community's participation in this project was initially established from the local governance (the town council) and the community research team prior to obtaining individual participant consent. In order for children to participate in the project, parental consent was mandatory, along with assent of the participating children. Consent was also obtained from the University of Saskatchewan Research Ethics Board in Behavioural Science Research.

Community Engagement and Participatory Action Research

Participatory action research encourages the following three key attributes: shared ownership, community-based input, and community action (Kemmis & McTaggart, 2000), all elements respectful of integrating Métis knowledge and values into research programming. It is important to emphasize that the relationship of the primary author

(Sarah Oosman) in the community was born from a pre-existing relationship with a Métis physician and researcher (Janet Smylie) who had strong, trusting, and respectful relationships in the community. This pre-existing trust (developed with Janet Smylie) was passed forward to SO as a starting point to build on and strengthen. For this project, a Memorandum of Understanding (MOU) was collaboratively developed between academic and community research team members using the pre-existing (JS) research agreements. The memorandum was designed as a tool to support the community-university partnership and the success of the project by outlining project goals and team member roles and responsibilities. The memorandum made it explicit that the community was to remain as full partners in all aspects of the research process to ensure that local concerns and recommendations were understood and addressed at each stage of the research project. All of these elements are in keeping with principles outlined in the Tri-Council Policy Statement, Ethical Conduct for Research Involving Humans 2014 (Canadian Institutes of Health Research et al., 2014) Throughout the project, the MOU evolved as a living document as project priorities and roles/responsibilities shifted based on, and informed by, Métis expertise and knowledge. For example, the role of Mayor and Council shifted from being more involved in day-to-day decisions to more of a governance advisory role as trust and rapport were established. Project priorities moved beyond the initial goal of designing a CSH intervention only in the school to also involve the broader community, all of which is in keeping with a Métis worldview encompassing relationality within the entire community. An example was a recommendation to implement a community garden that would influence the health of not only the children but the broader community.

One of the main goals of participatory action research is to encourage researchers and participants to agree on a common goal and make change thoughtfully after critical reflection on current behaviours, knowledge, skills, and values of community members. Although participatory action research has not been previously outlined in a prescribed sequence of steps, its process generally involves a spiral of reflective cycles of: planning, acting, observing, and reflecting (Stringer & Genat, 2004). In our project, a community research coordinator was hired to inform a Métis perspective throughout the project. The community coordinator, along with a community advisory group consisting of two Elders, a principal, a teacher, and the mayor, guided the research processes and supported the integration of Métis knowledge into the project. Engaging these diverse community members allowed for multiple Métis perspectives to inform this project and nurture the complexities of Métis culture and context. The Métis perspectives guided such things as translation of English to Michif, integrating Métis-specific activities such as fiddling and Métis jigging into programming, and general consultation related to unique community processes and protocols, all of which were critical to the design of the CSH intervention. Regular contact and communication with these community research team members took place via phone calls, face-to-face meetings, teleconference calls, and email conversations. Communication in these diverse forms supported the iterative processes imperative

to the collaborative, shared learning and identification of action items inherent within PAR action cycles.

Data Analysis

A thematic analysis of the transcribed focus group discussions was informed by the socio-ecological model and allowed the identification of relevant themes through iterative readings of the transcriptions (Krueger & Casey, 2000). Socio-ecological models help researchers understand how people interact with their environments and take into account the influence that socioeconomic factors and other social and cultural influences have on individual behaviours and health outcomes (Marmot, 2005; Richard, Gauvin, & Raine, 2011; World Health Organization, 2008). Such models recognize that different communities and cultural groups will have unique and diverse environmental influences on health behaviours (Krieger, 2001; Richard et al., 2011; Susser & Susser, 1996). The data were categorized into themes that fit within the socio-ecological model such as at the individual level, family level, or school level. The focus group and interview data were initially transcribed from audio recordings. Transcripts, along with field notes and meeting minutes, were read and reviewed while abstracting meaningful data using the computer software, Atlas-ti. Information was broken down into smaller data portions and categorized into themes that summarized community member perceptions of elements important to Métis community members in designing a Métis culture-based CSH intervention. Transcripts, along with summarized themes from the analysis, were shared with the community coordinator to ensure community perspectives were integrated into data analysis. More specifically, the community coordinator observed all focus group discussions and read the summarized, analyzed themes. Following this, the coordinator met with a member of the academic research team (SO) to discuss whether themes fit with what was observed during the focus group discussions. Although the advisory group was also given opportunity to review the summarized thematic analysis, they did not provide any further input than that provided by the community coordinator. As well, one of the Elders on the research team made it clear that she could be contacted at any time to address any larger or more in-depth cultural issues.

Results

Participatory Phases

Results of the initial participatory phases of the PAR project identified elements and lessons important to both Métis adults and children in developing content for the CSH intervention. It is important to emphasize that the participatory phase results were a culmination of numerous, iterative meetings and discussions (including the two focus group discussions). The process of participatory action research was in no way linear. Our experiences with the PAR process aligned with Elder Marshall's concept of "two-eyed" seeing where expertise from the Métis community repeatedly

informed the action cycles, decision-making, and research process. Five main themes were identified from the community-engaged, participatory activities including (1) Family, (2) Community, (3) Culture & Cultural Activities, (4) Opportunities & Access, and (5) Healthy Choices. Along with input from the community advisory team and the community research coordinator, these five themes informed the priorities to be integrated into the CSH intervention.

Family. Adult and child participants identified the importance of involving several members of their family when participating in physical activity and healthy lifestyles. Adults indicated that if programs are to be welcomed into the community then programming must include children and their families. For example, one adult participant stated, "I usually walk. My sister and I usually walk—in the winter time and the summer time".

One of the participating children mentioned: "Yesterday I went walking with my Mom and S. came with us…" Another child reported fishing with his Dad, suggesting the importance of family in supporting younger children engaging in healthy and active lifestyles in the community. Participants felt that if there are healthy messages being taught at school, that it is important to ensure that parents and caregivers are also aware of these messages so that they can reinforce them in the home environment.

Several suggestions were offered by participants to ensure that family would be maintained as a priority in the development of the health-promoting school-based intervention. An adult participant suggested having a family information package containing content and educational materials delivered in the classroom. In our project, community members suggested such information packages to be sent home regularly with the participating children. Another adult participant thought it would be beneficial for the children to engage with the older generations in the community and have an assignment that would stimulate questions and dialogue related to physical activity and healthy eating between young children and the Elders in their family. Another adult participant felt it would be interesting to have children create pamphlets that also included healthy recipes that could be taken home for parents.

Community. All adult participants identified the importance of involving the community in developing a CSH-based intervention. A community walking group was identified as a potential pre-existing activity for the school intervention to link with. The children were very excited to share the importance of their local community environment, including the lake and the playgrounds, highlighting the importance of having highly accessible healthy spaces linked in a school-based intervention. Children reported riding their bikes, walking, jumping on the trampoline, swimming in the lake (in the summer), playing independently at the school park and playground: "You can walk and go play with your friends and bike ride…."

The lake surrounding the community serves as an excellent location where children and youth often swim, fish, canoe, and kayak during the summer and skate,

ski, and ice-fish in the winter. Further to engaging in these outdoor recreational activities, participants explained how the lake also offers opportunity for older adults (grandparents) and adults (parents) to share their experiences and knowledge of living off of the land with their children. Participants emphasized the importance of connecting younger generations with the land and one young participant proudly displayed her mittens, which were made and beaded by her grandmother (with hide from her grandfather's trapline).

Adult participants felt that involving older youth to mentor, plan, and run programs for younger children would benefit both the participating children and the youth leaders themselves. Adult participants emphasized the importance of these types of mentorship opportunities that are strongly connected with community structures and historical contexts. Family, extended family, and kinships, are elements that are highly regarded in Métis culture and identity (MacDougall, 2006). *Wahkootowin* was a term that embodied a unique world view held among many Île-à-la-Crosse community members to express the strong relationships between and among family members that lay the foundation for all activities, and in this case, for ensuring future health (MacDougall, 2006). Other community-engaged suggestions from adult participants included involving children in the day-to-day activities needed to support a community garden, engaging with local convenience and grocery stores to adapt the products they are selling, and inviting guest speakers who are health care professionals working in the community to share in-person health promotion messaging. One adult participant indicated that face-to- face interactions with guest speakers, such as health care professionals, were more meaningful:

> It's the same thing, you know… sitting with a nutritionist face-to-face…if they can't even come to us as educators, such as physicians and that, how do you think they'd feel talking to a machine [computer]?

Both children and adults highlighted the need to use community strengths. Participants felt that there were many opportunities in the community to build upon and integrate into the health-promoting school-based intervention, all of which connected children to the community, and to the people living and working in the community.

Métis Culture and Métis Cultural Activities. Both of the adult and children focus group discussions highlighted mainstream, western-types of physical activities such as organized sport teams and recreational activities such as swimming, walking, and bicycling. However, the adults spoke more about their desire to integrate enhanced cultural activities such as Métis jigging (rapid moving dance technique unique to Métis people) to increase physical activity levels of children. The Friendship Centre was described as a place that provided "Cultural connections for Aboriginal youth," programming that integrated recreation, leadership, cultural, social, and wellness-related opportunities for Métis youth (aged 14-24 years) living in the community.

There seemed to be fewer formal opportunities for children under the age of 14 years to engage in such activities; however, the Michif Festival was a formal cultural event in which young Métis children participate and which could link to intervention programming, activities, and healthy food awareness. There are, however, many recreational activities that connect children to their Métis culture, as described by one of the child participants: "In the summer me and my Dad go fishing in a boat". (Fishing is a common, local practice that has been taking place in the community for generations).

These informal activities could be further explored and built upon in the development of the CSH-based intervention. These local, cultural activities and practices were identified as very important to be included in the CSH-based intervention. The Michif language is a priority for the community members and dialogue revealed that the language is so much a part of the identity of individuals and families living in this community. Along with language, storytelling continues to be an important way in which older adults and Elders in the community share culture and teachings with the younger generations. Therefore, all adult participants emphasized that Michif language and storytelling should be priorities in the CSH-based intervention.

Opportunities and Access. Discussions identified that children who lived in neighbourhoods that were not in close proximity to the schools had limited access to physical activity opportunities. Community members reported that, although their community was small, it was spread out which prevented easy access to school playgrounds. One adult noted: "…a lot of kids don't have a place to play".

Other participants commented that, although there may be opportunities for children to be active in the community, not all of the children choose or feel empowered to access these opportunities and they felt that this situation needed to change. Another participant noted: "It's those kids who are sitting at home and playing the games and watching TV—those are the kids who we are missing out on".

Organized sport opportunities offered in the community were reported to be too expensive for some families and therefore some children were not able to engage or participate in sport. Children we spoke with reported being aware of the many diverse options for them to be active and identified that they felt it was very easy to be active. The children reported being aware that there were some other children living in the community (friends, peers, relatives not participating in the focus group discussion) who had more difficulty getting out and being active. Interestingly, the group of students who participated in the focus group were very optimistic about their own participation and could not clearly articulate what types of things would make it easier for other children (who were less active and living in the community) to be more active. The students' perceptions were such that they felt it was easier to be active in the summer than the winter because "it's not as cold." Also, most students related being outside with being active and being inside with being inactive. Building

awareness of the fact that children do not just need to play a competitive sport to be physically active, participants felt, was important to convey in messaging within the CSH-based intervention.

Healthy Choices. Physical activity and nutrition knowledge and awareness among children and families were themes identified as playing a role in children participating in healthy lifestyles. Knowledge and awareness encompassed the general topics of improving children's, and their families', understanding of why it is important to be active and eat healthy and also what types of programs and activities are available to them in their community. Adult participants felt that it was important to be explicit about why healthy lifestyles are important in preventing diabetes. It was important to the community that the term *diabetes* be used as an example of how health-promoting lifestyles can actually help these young children to prevent or delay the onset of this chronic condition. Many of the children were aware that diabetes had a negative impact on their family members and it was important to adult participants that the younger generation understand what diabetes is and that it can be prevented by living a healthy lifestyle from an early age.

Action Phases. Similar to the experiences with the participatory phases of this PAR project, the focus on action did not take place at one time but rather as ideas were generated. Actionable items, informed by our community team and focus group discussions, were integrated into the CSH design as they were gathered over the course of a series of interactive and reflective action cycles.

Family involvement was an important priority for the CSH intervention design. Interactive, educational activities with Elders in the community were planned throughout the CSH design. Opportunities for Elders to share their stories and experiences of growing up were prioritized. Messaging around culturally relevant protocols for speaking to an Elder was integrated since, for some families in the community, the act of giving tobacco to an Elder when asking for advice or their knowledge is important, while for other families it is not appropriate. Acting with respect is paramount; the giving of tobacco is a symbol of respect. In this way, Métis culture, processes, values, and protocols were woven throughout the CSH. Best practices from such programs as the Pathways obesity prevention study (Davis et al., 1999) were brought to our community research team members for review. Family activity packs previously implemented in Pathways were approved (with recommended revisions to the language and geographical references). For example, the term *American Indian* is used respectfully in areas of the United States of America, whereas the term *Métis* is more appropriate. This represents an example of applying the concept of Elder Marshall's "two-eyed seeing" where best practices from the academic literature were identified by the academic research team members then reviewed and modified by community experts for Métis cultural relevance.

Activities such as Métis jigging, Métis fiddling, trapping, and beading were

subsequently suggested for the CSH intervention. Preparing local foods such as Rubaboo stew, moose meat, and pemmican were also identified. Linking the CSH program activities to pre-existing community and school cultural initiatives (such as the Michif Festival) was recommended in order to ensure optimal attendance.

Discussion

This paper highlights the way in which we enacted participatory action research by taking what is known about PAR methods and applying them in a Métis context. There is limited literature detailing the process of applying PAR methods in Métis communities and this paper raises awareness of our experiences. In so doing, we also reveal Métis community priorities in developing a CSH intervention. This paper demonstrates the strengths in applying an integrated "two-eyed" approach to respectfully partner with Métis community in research.

The participatory nature of this project was critical to building trust and rapport among community research team members and participants. Trust building is critical when working with Métis communities as trust is often challenged by the historical practices of colonization, assimilation, and inequality embedded in western research. The small reflexive action cycles characteristic of PAR ensured opportunity for Métis community members to share their ideas on CSH priorities. The participatory stage of each action cycle allowed the academic research team members to learn from community members and opened dialogue and opportunities for clarification, which nurtured relationship building. Reciprocity is a key feature of participatory action research (Diver & Higgins, 2014; Minkler & Wallerstein, 2008) and crucial when the worldviews of the participating community are different from that of the academic team members (Potvin et al., 2003). The action stages of the reflexive action cycles provided opportunity for academic research team members to apply the learning and knowledge obtained from the participatory stages, indicating to the community members, through action, that their opinions, expertise, and advice were valued and acknowledged. This further nurtured relationship, trust, and rapport building.

The participatory elements of PAR also enhanced engagement with the children in the community. Involving Métis children in focus group discussions to inform the design of the CSH intervention was a unique aspect of this project. Active engagement provided them with a sense of ownership which may, in turn, influence their future participation in the intervention. In doing so, the power imbalances that may exist between adult researchers and Métis children may be minimized, as previously suggested (Jacquez, Vaughn, & Wagner, 2013). Furthermore, integrating ideas from both the child and adult focus groups will ensure that the CSH will be more meaningful for their community and further enhance the trust building process by being responsive to the participants' needs and input. Such participation has been described as enhancing control, community ownership, and the sustainability of programming in communities (Gorman et al., 2012). Involving children in focus group discussion to inform the design of the CSH intervention is also in keeping

with Métis ways of intergenerational interaction, thus supporting Métis community processes and protocols.

It became evident early in the project that the PAR action cycles do not play out in a clear, linear sequence but rather as action cycles that informed future action cycles while also linking back to inform gaps in earlier cycles. The iterative and intersecting action cycles integrating community-academic opinions, experiences, expertise, and strengths embody the concept of the "two-eyed seeing" approach described by Elder Marshall, allowing the emergence of Métis culture to inform the design of a CSH within western research methods.

It would be fair to ask about the alignments and differences with the successful First Nations interventions highlighted at the beginning of this paper. Our findings are consistent with the design of other First Nations-specific health promoting school-based interventions (Kakekagumick et al., 2013; Macaulay et al., 1997; Saksvig et al., 2005). The Aboriginal Learning Knowledge Centre (2007) identifies that both language and culture are educational foundations integral to the learning process of First Nations, Inuit, and Métis people (Aboriginal Learning Knowledge Centre, 2007; Tagalik & National Collaborating Centre for Aboriginal Health (NCCAH), 2010), and our project findings demonstrate this. Incorporating Métis culture and language into the Métis CSH intervention, therefore, will enhance the impact of the health-promoting educational messages. Cultural knowledge and language are unique to each Métis community and are strongly linked to personal identity and the values, beliefs, and principles that guide individual behaviours (Loppie Reading & Wien, 2009; Tagalik & National Collaborating Centre for Aboriginal Health (NCCAH), 2010). Considering the way in which the application of PAR supported and nurtured the emergence of Métis experiences and language in our project emphasizes the importance of collaboratively partnering with Métis community members so their expertise can be integrated repeatedly throughout the research process. Elder involvement in programming aligns with Métis community protocols where Elders are respected as role models for younger generations, thus further supporting program ownership and long-term sustainability. Expanding CSH activities to include older adults and Elders in programming resonates with other Indigenous populations and health promotion programming in Indigenous communities (Economos et al., 2007; Hesketh, Waters, Green, Salmon, & Williams, 2005; Kakekagumick et al., 2013).

Métis community members viewed health promotion as not only encompassing physical health such as eating well and being active, but also promoting a sense of belonging and connection to the community and the surrounding land. This concept of relationality, or the connections to one's family, community, and the land, is foundational to this Métis community and parallels the beliefs of other First Nations populations (Blackstock, 2007). Inclusivity considers the role of families and the community, and must also be prioritized in designing the Métis CSH intervention. Expanding health promotion educational messaging beyond the school, as suggested by participating Métis adult community members in this study, has been a priority for

others (Davis et al., 1999; Kakekagumick et al., 2013; Macaulay et al., 1997; Saksvig et al., 2005; Tomlin et al., 2012).

There were not substantial differences to the priority areas and values highlighted by Métis community members in designing the CSH-based intervention compared with those implemented in Kahnawake or Sandy Lake. It was critical, however, that these similarities were not merely assumed by the academic researchers, particularly in a Métis health research environment where power dynamics are continuously at play. Ensuring that community had the opportunity to provide input, to feel they were heard, is an important element that PAR methods effectively support. Métis community members emphasized family involvement beyond the school in order to maintain community protocols and knowledge sharing. This was important aspect of programming that was missing from the Oji-Cree Sandy Lake Diabetes Prevention program (Saksvig et al., 2005). The Pathways obesity prevention program implemented in the USA did integrate family activity packs to support the transfer of educational messaging and family involvement in the program with families (Davis et al., 1999). Our study brought these 'best practices' from Pathways to the Métis community and modifications were necessary to ensure Métis culture, geographical referencing, and language were in keeping with community expectations. Interestingly, this example is another practice that reinforced the academic and community research team members' ability to share their expertise in a "two-eyed" approach to research.

We applied the socio-ecological model to inform the analysis of the focus group discussions. Although the socio-ecological model may not have been optimal for the analysis, academic and community team members deemed it the most appropriate framework at the time. PAR 'gold standards' suggest that community members should be involved in every aspect of the research process (Potvin et al., 2003). However, in our experience with this collaborative work, the lines of PAR roles and responsibilities become less clear, particularly when working with community members who are supporting several community-based initiatives, jobs, and family structures where time is challenged. We observed that involving community members in every step of the research process is not always respectful. Academic team members must respect community partner advice on how to proceed. In our case, the community research team members wished to review results but did not feel they were able to be involved in data analysis. In order to maintain the best interests of the Métis community the socio-ecological model was chosen.

The practice of engaging with the community research team on their own terms not only informed the development of a culturally appropriate CSH curriculum, but also strengthened trust and rapport. PAR enabled the academic research team to collaborate in respectful ways to move beyond historical, colonized ways of doing research that rarely benefited the involved community. Furthermore, our experiences highlight how PAR methods were applied in ways that brought the strengths of both western academic Métis community expertise together to design a culturally appropriate Métis CSH intervention. Health promoting interventions that

are meant to positively impact health and healthy behaviours among Métis children must be grounded in Indigenous (Métis) ways of knowing, doing, and being. At the same time, the design of CSH interventions must be evidence-based and informed by best practices learned from other Indigenous contexts. In this way, a "two-eyed" seeing approach is the most appropriate way to develop a Métis culture-based CSH intervention, balancing Métis and western worldviews, knowledge, and perspectives (Marshall, 2008).

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