

A QUALITATIVE INVESTIGATION OF PHYSICAL ACTIVITY CHALLENGES AND OPPORTUNITIES IN A NORTHERN-RURAL, ABORIGINAL COMMUNITY: VOICES FROM WITHIN

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ABSTRACT

BACKGROUND

Type 2 diabetes disproportionately affects Aboriginal peoples in Canada. Aboriginal communities, health care professionals and health promotion researchers are turning their attention to primary prevention through increased physical activity (PA) and healthy eating. Before effective interventions can be designed and implemented, an understanding of the wants, needs, and perceptions of the community must be garnered.

PURPOSE

To investigate the perceptions of the community environment and PA patterns of adults living in a northern-rural, Aboriginal community and to inform the planning and implementation of community-relevant PA interventions.

METHODS

Three sharing circle discussions were conducted with 5 men and 8 women (mean age=42 years, $SD=12.42$) who discussed their PA involvement, community specific challenges to being active, and programs/resources they would like implemented. A community teacher facilitated sharing circles using structured interview questions.

RESULTS

Three “physical activity challenges” were identified: lack of culturally relevant opportunities, economic disparity, and a lack of gender specific opportunities. Three “physical activity recommendations” were given: increase physical activity through a reconnect to the land via traditional activities such as fishing and hunting, increase access by decreasing cost, and provide opportunities that appeal to both men and women.

CONCLUSION

Results suggest that providing traditionally relevant PA opportunities may enhance perceptions of a supportive environment and possibly impact PA involvement. The social ecological paradigm may be useful for designing and implementing interventions in Aboriginal communities because it considers cultural aspects of the person and community.

INTRODUCTION

While Aboriginal peoples in Canada represent a small percentage of the overall population, they are over-represented in the prevalence of type 2 diabetes with national age-adjusted rates of type 2 diabetes being three to five times greater than in the general population (Young et al., 2000). Given the chronic nature of diabetes and the severity of its related complications, current efforts are focusing on primary prevention strategies to impact upon the incidence of type 2 diabetes (Macaulay et al., 2003). Primary prevention is defined as the prevention of a disease by targeting or controlling modifiable risk factors (World Health Organization, 1994). There is compelling scientific evidence available which suggests that a positive change in lifestyle can prevent or delay the onset of type 2 diabetes as well as alleviate the symptoms of those who already suffer from the disease (Williamson et al., 2004). Modest weight loss resulting from sustained lifestyle interventions that include alterations in both dietary habits and physical activity involvement can reduce the incidence of type 2 diabetes in high-risk persons by 40% to 60% over 3–4 years (Williamson et al., 2004). In addition, physical activity can provide protection against type 2 diabetes that can be largely independent of alterations in body composition including improved insulin levels and glucose control (Sharpe et al., 2004).

The well-established connection between diabetes prevention and physical activity involvement provides the rationale for implementing interventions to get sedentary or irregularly active individuals active on a consistent, habitual basis (Williamson et al., 2004). The ability to alter one's activity level is dependent upon a multitude of factors that mediate or influence levels of physical activity (Trost et al., 2002; Dishman and Buckworth, 1996; Buckworth, 2000; Dishman et al., 1985; Owen et al., 2004; 2000). While this area is generally well investigated in white, middle-class populations, limited Canadian data exist that include populations such as Aboriginal peoples (Bryan et al., 2006; King et al., 2000). The 2001 Aboriginal People's Survey suggests that 56% of First Nations people in Canada participate in sports, games, or recreational activities (Statistics Canada, 2001). Similarly, an analysis of Statistics Canada's Canadian Community Health Survey revealed that 47% of Aboriginal people in Canada are moderately physically active (Bryan et al., 2006).

Physical activity behaviour change and maintenance are complex phenomena that depend upon a multitude of factors that include, but are not limited to, intrapersonal, interpersonal, and environmental influences. In ad-

dition to considering well-documented correlates of physical activity involvement, intervention planners need to also consider unique characteristics and attributes of a people and place in order to design meaningful interventions (Mapolitano and Marcus, 2002). According to Stokols (1996: 203),

... most public health challenges are too complex to be understood adequately from single levels of analysis and, instead, require more comprehensive approaches that integrate psychological, organizational, cultural, community planning, and regulatory perspectives.

Social ecological models that acknowledge the interplay between personal and environmental factors are recommended for investigating and influencing physical activity involvement (Spence and Lee, 2003). The study purpose was to use an ecological lens to investigate community members' perceptions about their access to and involvement in physical activity opportunities in their community. This multi-dimensional gaze intended to capture intrapersonal and environmental descriptions of participants' physical activity experiences in order to inform intervention design and implementation for promoting physical activity in this Cree community in Canada.

CONTEXT

Situated three miles from the mouth of James Bay, Moose Factory is an island community home to approximately 2,700 persons. Moose Factory, like Fort Albany and Attawapiskat, is located on Mushkegowuk Territory, the traditional home of the Swampy Cree (Honigmann, 1981). Existing archaeological evidence suggests the Cree people have inhabited this area for over 3,000 years (Dawson, 1983), living off the land and migrating with the seasons. In 1673, the Hudson's Bay Company established a fur trading post in Moose Factory. As a result, the Cree people began to congregate here in the late spring and summer months while fishing along the river in the fall and moving inland to trap and hunt during the winter (Honigmann, 1981).

The introduction of a European way of life has had a deep impact upon the health, culture, and spiritual well being of the Cree people of Moose Factory. The early nineteenth century gave rise to the introduction of Anglican missionaries on the island. In an attempt to reform the Cree people to a westernized belief and value system, many aspects of their traditional culture were lost (Dawson, 1983). The Anglican Church still flourishes on Moose Factory Island today. In addition, the signing of Treaty 9 in 1905 was seen as a major contributor to the significant lifestyle changes experienced by the Cree people

in subsequent years. Many began the transition from living a nomadic way of life off the land to settling permanently in communities and relying heavily on external resources (Abonyi, 2001). Further altering their traditional way of life was the introduction of residential schools in 1928. This attempt at assimilation meant hundreds of children were exposed to physical, sexual, and emotional abuse. Children were denied teachings of their native Cree language and therefore could no longer communicate with the older generation. Culture and tradition were lost due to an inability to communicate. As a result of these numerous and complex factors, the traditional lifestyle of earning a living and surviving off the land has passed. More common now are daily hunting trips or trips lasting a few weeks at time. For instance, many community members still practice the traditional goose hunt in the spring and fall (approximately one month) and other traditional activities such as the preparation and tanning of moose hides and the making of moccasins. Qualitative and descriptive observation suggest a high calorie diet and sedentary activity patterns characterize the current lifestyle behaviours of many Moose Factory community members (Abonyi, 2001).

Community members from Moose Factory recognized the high incidence of type 2 diabetes in their community and sought assistance from a trained diabetes prevention educator with the Kahnawake Schools Diabetes Prevention Project (KSDPP). Shortly thereafter, a team from KSDPP travelled to the community to deliver a one-week training program in diabetes prevention including teachings in health promotion, nutrition, physical activity, wellness, and diabetes education. It is necessary to develop interventions which target all areas of diabetes prevention; however, this project is focused specifically on the physical activity dimension of diabetes prevention. Before physical activity interventions are developed and implemented in a community, it is necessary to assess community members' perceptions of their access to and involvement in physical activity opportunities in their community. A compilation of this information serves as a starting point for developing physical activity interventions for the primary prevention of type 2 diabetes in the community. A participatory research approach provides the foundation for this project whereby the community's goals and needs are the project's driving force.

METHODS

Sharing circle discussions (also known as focus groups) were used to gather information concerning how community members feel about the physi-

cal activity resources and opportunities in their community. Sharing circles were chosen based on their organized structure whereby a facilitator follows an interview guide while searching for community members' perspectives about physical activity-specific issues that are important to group members. The term sharing circle was used (as opposed to the more scientific term, focus group) to increase cultural appropriateness and to foster an environment where community members would hopefully feel more comfortable sharing their thoughts and opinions.

PARTICIPANTS

Participants were recruited from a group of community members who had completed a physical activity survey for a larger research project. Twenty-six women and fourteen men who were interested in discussing physical activity involvement in the community volunteered to participate in four sharing circle discussions. Although all of these volunteers were contacted and sharing circles scheduled, only five men and eight women (mean age=42 years, $SD=12.42$) attended the scheduled focus groups. It is worth mentioning that although this number is small, it is likely that these participants are sharing experiences that are not only personal, but also common in "like" others (Morse, 2001) and thus are expressing views held beyond these thirteen participants.

SHARING CIRCLES

Men and women participated in separate sharing circles to increase comfort in disclosing information to the group (Krueger, 1994). Community members were informed that their participation was completely voluntary and anonymity was assured. A letter of information was provided and informed consent was obtained prior to participation in accordance with the KSDPP Code of Research Ethics (Macaulay et al., 1988) and the Queen's University General Research Ethics Board.

Sharing circle discussions were held at a local education building and were facilitated by a teacher from the community who is fluent in both Cree and English. Sharing circles lasted 45-60 minutes, were audio taped, and participants were identified by first name only. Participants were provided with a meal and refreshments in addition to childcare. Interview protocol development and facilitator training were undertaken using procedures recommended by Krueger and Casey (2000). Participants discussed their current involvement in physical activity, personal and community specific challenges

to being active, and programs/resources they would like to see implemented in the community.

CODING AND ANALYSIS

Sharing circle discussions were transcribed verbatim and stored in Microsoft Word. Transcription resulted in 32 pages of single-spaced typed text. Following procedures recommended by Standing (1998), linguistic tics were tidied to avoid reinforcing stereotypes and cultural constructions of marginality. Every attempt was made to maintain meaning and no words were changed.

Data analysis included a combination of inductive and deductive approaches and comprised two main steps following the work of Ritchie et al. (2003). First, data were systematically analyzed in a cross-sectional “code and retrieve” method to identify recurrent patterns related to physical activity (Spencer et al., 2003). This approach is utilized to get a sense of the scope of the data, to aid in finding examples which do not appear orderly in the transcriptions, and to help in handling the data for making comparisons and connections (Spencer et al., 2003). This process included constructing an index (i.e., conceptual framework) based on an ecological approach (Stoklos, 1992; Gauvin et al., 2001; Green et al., 1996) whereby intrapersonal, interpersonal and environmental factors are considered to interact to influence and mediate behaviour. These three levels of influence acted as predetermined categories of physical activity behaviour (Ritchie et al., 2003). Sub-categories (e.g., economic disparity) emerged inductively. The raw data and comments were then “indexed” under each of the three deductively formulated categories. This process was carried out systematically for the entire data set until all of the raw data were subsequently classified as an intrapersonal, interpersonal or environmental influence on physical activity involvement (Ritchie et al., 2003).

RESULTS AND DISCUSSION

Content analysis of responses generated three “physical activity challenges”: lack of culturally relevant opportunities, economic disparity, and a lack of gender specific opportunities. In addition, three “physical activity recommendations” were also identified: increase physical activity through a reconnect to the land via traditional activities such as fishing and hunting, increase access by decreasing cost, and provide opportunities that appeal to both men and women.

PHYSICAL ACTIVITY CHALLENGES

Lack of culturally relevant opportunities. Traditionally, the Cree people of this northern Ontario community were very physically active, as their lifestyle demanded it. Physical activity meant more to people than just physical exertion; it meant survival. Daily activities included cutting and hauling wood, hunting, fishing, and carrying water. The shift that has occurred over the last number of decades, forcing a westernized economic, belief, and value system upon Aboriginal peoples in Canada, has had a great impact upon their physical activity involvement. Modernization in the form of electricity, running water, and vehicles for transportation have eliminated the need that once existed to chop and haul wood for heat, to carry water for cooking, and to walk when travel was required. This shift has, for the most part, resulted in a sedentary lifestyle where electricity is made available at the touch of a button. A continued frustration and sense of loss was portrayed in relation to this lifestyle alteration in the sharing circle discussions:

Anonymous (male): And I don't go in the bush to cut wood anymore because we have electricity and a lot of those things, I used to go in the bush. But now we have a snow machine.

I think TV is one of the worst things that's come along in this community as far as exercise. You don't even see kids outside anymore really. Not like you used to. Even kids are not really active. There are a lot of kids that just stay inside and play video games and don't play outside. Or don't even come out of their room.

It is evident that people feel much of the present physical inactivity on the island has to do with a shift in lifestyle including the introduction of electricity, television, and motor vehicles:

G.B. (male): There's something that I learned somewhere along the way. Around 1972 or '73 or '74 they were negotiating the James Bay Northern Quebec agreement in Northern Quebec. They were still very traditional at the time those people there they lived almost all the time in the bush. They didn't have much machinery (they were) mostly on foot and they were trying to measure how much people required in

terms of nutrition and that kind of stuff. They were trying to find something to compare it to, the nutritional requirements to live a lifestyle like that. The only thing they found was Olympic athletes in training. The Olympic athletes in training had the same requirements as someone living in the bush travelling, walking with snowshoes and carrying their stuff and chopping their own wood and carrying their own water. That's how active we were not that long ago, that's how you can see how much of a change has happened. I don't know if you do a similar comparison now we don't use up that much energy at all.

Many people recognize that there is no longer a need to do the heavy work that was once imperative for survival. Despite the changes that have occurred in lifestyle over the last number of decades, there is still a strong desire to spend time on traditional lands, and partake in land-related activities (e.g., trapping, fishing, hunting). Many of the community members cited camping and fishing as their most enjoyable physical activities and were interested in keeping these activities alive by teaching and sharing them with the children.

F.R. (male): I wouldn't mind having a program where I could take kids fishing. Because you can see them all over around the banks trying to fish and they ask me to take them fishing too but there are so many of them. Even at the docks when I am ready to go fishing they want to jump in to take them fishing. There's a lot of them that need to go to the outdoors and that way you could teach them more stuff up there when they're up there, to do other things besides fishing. Take them out into the bush; show them to respect stuff, our people, our land. Be able to teach them to hunt and to fish.

L.L. (female): We want to try to do that in the summer time, to take them out and show them how to set nets and clean fish, traditional ways of cooking and fishing that are healthier. We were talking of ways of cooking Sergeant where you

cook it in its own skin you don't need lard or fat or anything like that, you just use a fire and it cooks in its own juices and that's much healthier than frying it. If people don't practise those things they are just going to get lost.

These traditional ways of surviving and living off the land clearly have deep meaning for people, providing a link to a traditional, independent Cree way of life. People put emphasis on teaching these skills to the children and youth of the community through physically active means, wanting to preserve what is left of their culture and heritage.

D.G. (male): You know I was taught from when I started to walk around by my grandparents how to live out there and hunt, trap, and fish and all that and I taught my boys the same. I have a grandson now and his dad can't wait to be able take him hunting and fishing and I agree ... I take my nephews and their buddies out to camp in the fall and they don't want to go home, they don't want to go back to school, they are learning enough here. That's the attitude they give me. We need more of that type of stuff around.

While it was evident that traditional activities are immensely important to many persons in this community, there was also a desire for more westernized forms of physical activity to be introduced and offered to people on the island. Women expressed interest in participating in aerobics and both women and men repeatedly said that the island needed a gym or a YMCA type facility. This interest in both traditional and non-traditional forms of physical activity can be viewed as representative of a people who are experiencing influence from two very different ways of living. Due to the pay-for-use nature of facilities such as YMCA, it is doubtful that a venue of that sort would succeed. Programs that already exist on the island (i.e., hockey) are suffering because many community members are unable or unwilling to pay membership/registration fees.

Anonymous (female): And when they do have programs it's money, they always want money. There are some people that can't even afford stuff like that.

There is a question of sustainability surrounding non-traditional activities. There was evidence in the sharing circle discussions to suggest that attempts have been made in the past to introduce more westernized forms of physical activity (e.g., aerobics) delivered by persons outside of the community. Unfortunately, when the person who brings the activity to the community leaves, the activity vanishes as well. For example, when one respondent was asked about changes she has made in her life that have included physical activity she replied:

Anonymous (female): I was involved in physical activity for a month I kept doing it for a while like she told me and I slacked off... I haven't done it for a while. I have nobody to encourage me.

Similarly, another woman responded to the same question by saying:

Anonymous (female): ... then the 3 or 4 guys who organized all that stuff you know they moved on and it just died and nobody picked up the ball.

It is highly likely that an absence of community involvement in the design and implementation of programs such as these contributed to their lack of sustainability once the original program provider left the island (Macaulay et al., 1999).

Despite efforts made to introduce westernized forms of physical activity to the people of the community, little headway has been made. Hockey is the one exception to this trend and can be used to guide the introduction of future programs and opportunities on the island. Specifically, hockey is a community-driven activity that yields support at various community levels (e.g., Band Council, paid community employees, and community volunteers). There is a sense of community ownership and pride surrounding the activity that has likely led to its long-standing sustainability. It appears as though other attempts that have been made to bring activities such as aerobics to the island via transient visitors have had limited success likely due to a lack of sustainability. Efforts and resources would be better spent in engaging and educating local people to lead activities, thereby enhancing program sustainability and community self-determination. Involving community members in the design and implementation process is a widely practised means of promoting social justice and equity in health (Mooney, 2000). The

Kahnawake Schools Diabetes Prevention Project has successfully used such a model whereby community members use their cultural knowledge, community contacts, and educational backgrounds to guide the process of planning and implementing intervention activities (Cargo et al., 2003).

Economic disparity. Resource availability and expense are factors related to the physical and social environment that influence involvement in traditional physical activities (e.g., camping and fishing). Community members' access to land resources varies depending on their socio-economic status. Unemployed individuals or those relying on social assistance may not be able to afford camping and fishing trips. Evidence of this connection between access to traditional physical activity involvement and social disparity was present in the sharing circles:

Anonymous (female): ... there is nothing else I could do, there is nothing to do and I don't have the opportunities like her to go camping, I don't have the facilities, the money, stuff like that.

Similar results were reported by Abonyi (2001) who completed field work in the community in 2000 investigating diabetes in the community. Excerpts from an interview with the dietician on the island noted that even though frozen fish is quite expensive, people buy it frozen rather than go fishing. "It costs more to fuel the boat to go upriver where the fish can be caught, than to simply buy it frozen."

Without the opportunity to partake in traditional physical activities, there are few options available, meaning program and facility accessibility are strong environmental factors affecting physical activity involvement. There is a hockey arena on the island, but it services only a limited number of community members, as there are no recreational leagues for adults, only minor hockey for both boys and girls. Moreover, the cost to play is prohibitive and no hockey equipment is provided. Baseball tournaments in the summer are only for male players with strong skills who wish to travel to Moosonee for tournaments.

D.G (male): I guess the only time there seems to be any kind of activity or sports and recreation activity especially at the ball field down there is when there's a tournament, a ball tournament that leaves everybody else out, the other 80% of

eligible baseball players, it's just the handful of people that are good players and are in a tournament because they have to win and have the best team. There are no leagues, you know.

Gender. While there are limited options for men to be involved in physical activity on the island, the situation appears even worse for women. Gender emerged as a very important intrapersonal physical activity correlate. When asked what they like to do in their free time, women most frequently replied watching TV, playing with their children or grandchildren, and doing housework. Moreover, when asked what activities are available for them to partake in, all of the women replied: "there's nothing."

Anonymous (female): Just house clean I guess. Every time I have free time that is what I do because there is nothing else to do.

Women didn't report involvement in activities such as hunting and fishing as frequently as did the men, citing that these activities were traditionally reserved for men. The women also reported involvement in other traditional forms of physical activity that they would likely have been involved in hundreds of years ago (e.g., berry picking, fetching water, and cutting and hauling wood). Reports from Preston (2000) who was living in the community in the 1960s suggest that at that time many of the women in the community were seemingly overweight while their male counterparts were not, suggesting a lack of physical activity involvement in the women. Four decades later, Abonyi (2001) also observed that many of the women whose husbands participated in the traditional goose hunt did not travel into the bush with them, but remained behind in the community.

It is possible that men, more so than women, report a sense of loss with regards to involvement in traditional activities because it was only 30–40 years ago that they were depended upon to cut wood for heat and carry water for cooking. The situation is quite different for women, however, whose physical activity patterns have been classified as sedentary for hundreds of years now due to a historical exclusion of women from traditional forms of physical activity (Abonyi, 2001). One would have to go back to an era where all family members lived a nomadic lifestyle and the concept of a permanent home was unheard of to document a physically active lifestyle among these women.

Many women expressed concerns about childcare and duties in the home keeping them from physical activity and commented that they would walk more if they could afford a baby sitter.

Anonymous (female): Sometime we're stuck at home because we have to look after our kids. [We are] single mothers.

It appears as though women are bound by gender-constructed roles that require them to stay in the home and care for the children. Additionally, unlike the men, safety is a concern among the women:

Anonymous (female): You can't walk around early in the morning because there are too many dogs out. Or bears.

Many of the women expressed concern about the unattended dogs, but interestingly, this was not mentioned by the men. Similar findings were reported in a study where interviews were conducted with 350 Native American women. The authors concluded that social support (e.g., knowing people who exercise, seeing people exercise in the neighbourhood, and attending religious services) for Native American women is critically important to physical activity involvement (Thompson et al., 2003). These gender variations may provide an explanation for why the rates of diabetes are higher in women from the community than in men (Abonyi, 2001).

PHYSICAL ACTIVITY RECOMMENDATIONS

Reconnect to the land via traditional activities. The presence of motor vehicles, electricity, and running water can be viewed as environmental influences of physical activity involvement. Ecologically speaking, the significant shift in lifestyle is manifested through multiple pathways of influence upon physical activity behaviour. It can be useful to interpret our findings in this way because consideration for these multi-dimensional influences, as the social ecological paradigm suggests, can translate into the design and implementation of ecologically grounded interventions (Stoklos, 1992; 1996). For example, activities aimed at environmental change might include building walking trails where cars would not be allowed. Taken together, these would constitute an ecological approach to physical activity programming and would be consistent with a wholistic¹ approach to healthy living that is embraced by many members of the Aboriginal community (Battiste and Henderson, 2000).

1 This spelling is used to represent the meaning of the "whole." The more common spelling, holistic, leaves the impression of something that has a void.

Men in particular, require access to more traditional activities that accentuate a connection to the bush. In Sandy Lake, another First Nations community that has partnered with Kahnawake, a local entrepreneur bought several kayaks and rented them out to families in the summer so that they could paddle up the river through traditional hunting routes as their ancestors once did (personal communication, Sandy Lake diabetes prevention worker). Endeavours such as this one are great for increasing physical activity in the community, stimulating the local economy and providing people with a connection to culture, spirituality, and traditional ways of living.

Westernized forms of physical activity do not provide the cultural connection to the bush and traditional ways of surviving that are of paramount importance to the community. It is more likely that physical activities that highlight a renewal of cultural practices will contribute not only to increased physical activity but also offer the potential for deeper spiritual healing (Reid and Welke, 1998). The desire to be physically active in a manner that is congruent with traditional ways needs to be integrated in any physical activity intervention programming for the residents of this community.

Economic Disparity. It must also be stressed that any and all interventions designed for the community of Moose Factory consider the existing economic disparity that exists on the island and every effort must be made to increase access by decreasing cost. Possibly introducing a “co-op” model, whereby the community members pool together their resources to increase access to traditional physical activities such as fishing (having boats available) may be a sustainable option. Also, encouraging increased walking, especially among women, may be a very effective means of increasing activity considering its accessibility. Organizing walking groups may be preferable to decrease the likelihood of the women feeling unsafe while walking. Unlike most physical activities, especially strenuous ones requiring great effort and exertion, walking has proven to be a successful intervention strategy among overweight and obese individuals and those of low socio-economic status (Siegel et al., 1995).

Gender. While it is vitally important that interventions implemented are low cost and culturally relevant, it is equally important that they resemble the unique physical activity needs and interests of men and women in the community. Men and women tend to differ in their physical activity preferences and in the barriers affecting their involvement. Men, for instance, have a propensity to place a greater emphasis on a connection to the bush and being involved in hunting, fishing, and trapping. While women seem to hold

such activities in high esteem (i.e., feel they should be taught to the children), they do not seem as interested in becoming involved themselves. This gender discrepancy suggests that separate programs should be made available to cater to the needs of both men and women. Specifically, women require access to activities that provide childcare, a sense of security, and social support. Perhaps a walking group or a learn to run club would be successful or an aerobics program taught by a permanent member of the community to foster increased sustainability.

These qualitative data suggest that the low levels of physical activity on the island are related mainly to a shift in lifestyle (e.g., introduction of electricity) and socio-economic conditions (e.g., poverty). Additionally, there is evidence of a gender differential whereby women are less active and have fewer opportunities for physical activity. A compilation of the information generated by this investigation provides valuable direction for the newly formed Diabetes Prevention Team and anyone else planning interventions in this community and other rural Aboriginal communities in Canada.

Our findings need to be interpreted in light of certain limitations. This study was conducted within a single Aboriginal community. It is possible that the community members who chose to participate in the sharing circles may not be representative of the community as a whole and generalization of results needs to be carried out with a certain degree of caution. Due to a desire to reduce participant burden and to assure participant anonymity, no demographic characteristics were collected. It is therefore not possible to determine to what degree sharing circle participants mirror the community as a whole. Due to the scope of the research conducted, it was not possible to investigate other contributing factors to the type 2 diabetes plight on the island (e.g., diet, spiritual well being, etc.). A thorough investigation of all contributing factors would further enhance community members' ability to implement successful interventions. Also, given that participants were self-selected, it is possible that they were especially interested in physical activity and in this way, different from those who did not volunteer to participate. We do not have information available to evaluate this concern.

SUMMARY AND CONCLUSIONS

The knowledge gained from the work presented in this manuscript is an important contribution to the movement aiming to increase the understanding of physical activity correlates among Aboriginal populations in Canada. Most importantly for the community, the newly developed Diabetes

Prevention Team can use the information generated by this investigation to guide the design and implementation of physical activity interventions to increase physical activity involvement and decrease levels of type 2 diabetes.

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