
ACTION-RESEARCH

School Travel Planning with the Kahnawake Schools Diabetes Prevention Project: Partnership Perspectives

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Despite several studies examining the impact of school active transportation programming, there is limited understanding about undertaking the process of planning and evaluation from the perspective of community stakeholders. Most importantly, programming is rarely undertaken within an Indigenous context, which requires understanding of unique characteristics, culture, and needs. This study combined community-based participatory research with methods of ethnography within the Kahnawake Schools Diabetes Prevention Project in the Indigenous community of Kahnawake, Canada. This study fully engaged community members, built on pre-existing community and researcher strengths and increased the knowledge and understanding of active transportation to support schools in programming and implementation. In particular, this study, which may be relevant to other Indigenous and non-Indigenous communities, shed light on stakeholder perspectives of undertaking school active transportation program planning, which can inform the practice and provide support to others currently or planning to undertake similar projects.

Keywords: Community-based participatory research; Active transportation; Indigenous Community; Ethnography; Partnership evaluation

Introduction

Internationally, evidence continues to show that children and youth are not achieving sufficient physical activity (PA) (Colley et al., 2011; Guthold, Cowan, Autenrieth, Kann, & Riley, 2010; Hallal et al., 2012; Tremblay et al., 2016). This is concerning as low levels of PA have been linked to a clustering of cardiovascular disease risk factors, such as hypertension and type 2 diabetes (Ekelund et al., 2012; Friedemann et al., 2012). In fact, children between 5 and 17 years of age who are obese, were found to have a 12-fold increase in fasting insulin concentration (Freedman, Dietz, Srinivasan, & Berenson, 1999). Type 2 diabetes has been of particular concern within Indigenous populations in Canada, where incidence and prevalence rates of adults have been found to be three to five times higher than the general population (Dyck, Osgood, Lin, Gao, & Stang, 2010; Young, Reading, Elias, & O'Neil, 2000).

With growing concern over health and well-being of their people, in 1994 the Mohawk community of Kahnawake, Québec, partnered with academic researchers from nearby universities to implement and evaluate a diabetes prevention program called the Kahnawake Schools Diabetes Prevention Project (KSDPP) (Macaulay et al., 2006). KSDPP is a community-based participatory health promotion research project comprised of intervention staff, research team members, and a community advisory board (CAB). Using principles of community-based participatory research (CBPR), health promotion intervention programs are developed

to promote active living, healthy eating, and to raise awareness of diabetes through school-based and community-wide interventions including a school wellness policy and a health curriculum for Indigenous students (Hogan et al., 2014; KSDPP, 2007; Macaulay et al., 1997).

Recently, KSDPP, in partnership with two elementary schools and a local hospital, undertook development of a school wellness policy, which included a nutrition policy implemented in the 2009–10 school year. In 2011, the same partnership developed the physical activity (PA) component, which included active transportation (AT) as one of nine identified targets areas (Hogan et al., 2014). Active transportation – defined as a form of human-powered transportation, such as walking, bicycling and rollerblading (Public Health Agency of Canada, 2014) – can contribute to children’s daily PA levels. Children who use AT have shown to have higher PA levels and are less likely to be overweight than those driven (Alexander et al., 2005; Cooper, Andersen, Wedderkopp, Page, & Froberg, 2005; Heelan et al., 2005; Pabayo, Gauvin, Barnett, Nikiema, & Seguin, 2010). Yet, between 2000 and 2010 the proportion of 5–17-year-old students using inactive transportation increased from 51% to 62% in Canada (Active Healthy Kids Canada, 2013; ParticipACTION, 2015). Between 2014 and 2015, 25% of 5- to 17-year olds self-reported using AT, 58% primarily used inactive modes, and 17% used a combination for their school journey (ParticipACTION, 2016).

In Canada, the Active and Safe Routes to School (ASRTS) School Travel Planning (STP) process has been recognized and adopted to develop school AT initiatives (Active Healthy Kids Canada, 2012; Buliung, Faulkner, Beesley, & Kennedy, 2011; Green Communities Canada, 2016; Macridis & García Bengoechea, 2015). STP encompasses collaboration with key stakeholders through five phases: Setup; Baseline Data Collection; Action Planning; Action Plan Implementation; and Evaluation (Green Communities Canada, 2016). In early 2011, SM (then a master’s student with AT expertise) was invited to speak to KSDPP CAB and Research Team (RT) about school AT and the potential opportunity to support development of AT programming for Kahnawake students. Preliminary discussions revealed initial interest by CAB, which led to SM being invited to pursue her doctoral studies within KSDPP under the supervision of EGB and guidance of ACM, JJ, and AMM.

Mobilizing a committee of community stakeholders is a prerequisite to establishing a lasting interface among community members (Leviton, Snell, & McGinnis, 2000). For this, SM took September 2011 until November 2012 to immerse herself into the community by participating in KSDPP-led events, including walking events and luncheons. In doing so, SM was introduced to the broader community and was able to gain a better understanding of the community networks and culture to inform the project approach. Importantly it also built the community’s awareness of the upcoming project. However, with many community projects, it is often difficult to mobilize and maintain appropriate stakeholders due to turnover or change in priorities. Moreover, little is understood as to how to effectively facilitate stakeholders’ coordinated action to use evidence to formulate health promotion programs (Metzler, Amuyunzu-Nyamongo, Mukhopadhyay, & de Salazar, 2007; Roussos & Fawcett, 2000; Wagemakers, Koelen, Lezwijn, & Vaandrager, 2010). This study provides insider perspectives from community members of the KSDPP STP-Committee to understand what facilitates or impedes: a) stakeholder mobilization for creating health promoting STP initiatives within an Indigenous community, and b) the transfer of a project from an academic-community partnership to community control.

Methods

Community Context

Kahnawake is a Kanien’kehá:ka (Mohawk) community with a population of 7,859 approximately 10 miles from Montréal, Canada (Indian and Northern Affairs of Canada, 2011). The community controls many of its public service organizations including health and education, which has fostered culturally relevant, community-specific projects meeting local needs. Primary beneficiaries from this STP project were the 331 students, grades 1 to 6, attending two elementary schools in Kahnawake in the 2013–14 school year. Within these schools, the teachers deliver a health curriculum while KSDPP provides many healthy lifestyle educational and recreational activities, such as healthy eating and nutrition education, an after-school sports league, and numerous yearly events.

Methodology and Approach

This study combined principles of CBPR (Israel, Eng, Schulz, & Parker, 2013) with methods of ethnography (Creswell, 2012; Haviland, 1987) to undertake, document, and understand the first three STP processes (Green Communities Canada, 2016) with community stakeholders. Main concepts of CBPR state that: a) the affected population or community, who may be both designers and subjects of the research, should play

a leading role in the research process; and b) research, in terms of both process and outcome, may benefit from the interaction between the researchers and the affected population or community in understanding problems and reaching solutions (Boote, Baird, & Sutton, 2011). Combined with ethnography, which has emerged as an approach to program evaluation to understand how programs can influence cultures and organizations, and vice versa (Patton, 2002a), both allow stakeholders to be equitably implicated in setting the research agenda, including making decisions around identifying actions needed, defining research questions, and determining the type of data to be collected and how data will be analyzed, interpreted, and disseminated (Israel, Eng, Schulz, & Parker, 2005).

School Travel Planning Committee – Participants

A new STP-Committee was formed comprised of volunteer community members including the two school principals, two teachers/parents, a representative each from the school bus transportation department and the community protection unit, three KSDPP staff, one CAB member, and author SM (researcher/facilitator). Members were recruited during a public project information session in December 2012. For this, public service announcements were broadcasted through local media. Attendees agreeing to participate were contacted to attend the first STP-Committee meeting in January 2013.

Monthly round-table discussions were recorded with individual permission, and a meal was included as per the KSDPP culturally appropriate practice (KSDPP, 2007). In this project, the researcher was an STP-Committee member and participated in activities but remained “neutral” while engaged in on-going discussions making it a form of participant observation. In essence, the researcher’s role was intended to contribute to the success of the project (Patton, 2002a).

Data Collection/Instruments

STP is an on-going iterative process (Green Communities Canada, 2016), therefore a mixed form-naturalistic inquiry, qualitative data, and statistical analysis design to examine and understand STP-Committee progress was utilized (Patton, 2002a). More specifically, quantitative survey data and qualitative data from follow-up interviews, meeting minutes, and documentations of key processes and decisions were integrated using an explanatory sequential mixed methods design. Meeting minutes and documentation of key processes, decisions and progress, were documented, transcribed, and sent to the STP-Committee by SM for review within a week of the meeting; standard practice of KSDPP for member-checking.

Quantitative survey data and qualitative data from follow-up interviews were integrated using an explanatory sequential mixed methods design – involving the use of a quantitative survey to highlight important discussion topics that can be further explored and understood through follow-up interviews (Creswell & Plano Clark, 2011; Pluye, Bengoechea, Granikov, Kaur, & Tang, 2018). The Coordinated Action Checklist Survey includes 25 questions under the following categories: general; suitability of the partners; task dimension; relation dimension; growth dimension; and visibility dimension. Five answer categories included: no (0); probably not (25), no/yes (50), probably yes (75), and yes (100) (Wagemakers et al., 2010). This tool was chosen as it was developed to address coordinated action, which is a process by which people come together to bring about change in their environment for the purpose of improving the health of individuals and populations and to increase awareness of health consequences involved in policy decision-making and organizational practice (Wagemakers et al., 2010; WHO, 1986). The checklist acts as a tool to evaluate partnership progress and also enables the facilitation process throughout each phase of a partnership including initial mobilization of partners, planning, implementation, and evaluation (aligning with STP). Based on survey results, lower ranked dimensions and aspects were identified and informed the qualitative interview questions. Interviews were conducted and analyzed by SM, while themes and overall findings were discussed with the STP committee.

Organization and Procedures of the STP Process

The three STP-Processes included: a) setup to form the STP-Committee; b) data collection and problem identification; and c) action plan development (Green Communities Canada, 2016). Meetings lasted 1–1.5 hours, with the initial meetings focused on establishing committee members’ roles/responsibilities and the project’s objectives, procedures, and timelines. Culturally appropriate and respectful (KSDPP, 2007) data collection activities based on the Green Communities Canada guide, were co-developed, agreed upon, and undertaken. All procedures were reviewed by the STP-Committee, KSDPP Research Team and CAB, the Kahnawake Education Centre (KEC), and Kahnawake Combined Schools Committee (KCSC) prior to review and approval by a McGill University Ethics Board.

Evaluation

A formative evaluation, which makes no attempt to generalize findings beyond its original setting, was conducted using a Processes Analytic Framework, whereby data were organized to describe important processes undertaken to form and to guide the STP-Committee (Patton, 2002a). Throughout each STP-Process, discussion around roles, tasks, and next steps occurred to ensure continuation and natural evolution of the project. At the end of each STP-Process (8-, 15-, and 19-months), the Coordinated Action Checklist (Wagemakers et al., 2010) survey was administered by email or hand-delivered in hard-copy format and followed by interviews 1–2 weeks post-survey.

Data Analysis

All quantitative survey data were entered into SPSS v.20 using response category scores previously described. Each item’s mean was calculated by adding the scores and dividing by the total number of partners. Dimensions were rated by adding the item scores and dividing the result by the number of items (Wagemakers et al., 2010). Data were reported back to the STP-Committee and used to guide interviews. All qualitative data obtained through meeting minutes, interviews, and reflexive journaling, by SM, were transcribed from their original format (i.e. voice recordings). Analysis followed a mixed-mode – deductive and inductive components (Patton, 2002a) whereby data were deductively organized according to STP-Process, and inductively analyzed separately to identify themes and sub-themes (Spencer, Ritchie, & O’Connor, 2003). Both survey and interview data underwent comparative analysis to provide a sense of STP-Committee dynamics and progress. As depicted in **Figure 1**, the triangulation processes employed provided an overall sense of STP-Committee processes – an approach that promotes validity of data findings by allowing the researcher to explore a phenomenon more fully through a variety of methods (Patton, 2002a; Rapport & Maggs, 1997). In accordance to KSDPP procedures (KSDPP, 2007), all emerging themes were reviewed and discussed first with the STP-Committee, followed by discussion and review of results with the KSDPP Research Team, and CAB for final approval of format and content to ensure representativeness; a form of ‘member checking’ (Creswell, 2012; Lincoln & Guba, 1985). Upon approval, findings were publicly disseminated locally and externally. Overall, the full process allowed for confirmation of STP-processes and themes.

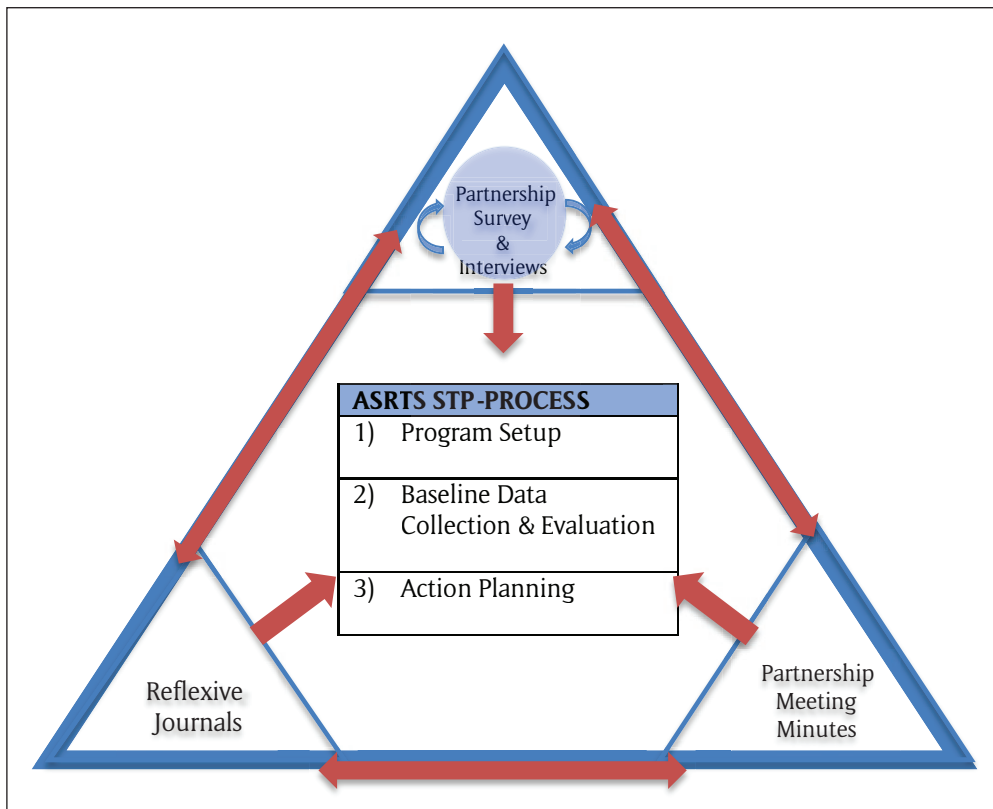


Figure 1: Triangulation of data sources.

Results

Results of the Partnership Survey

Table 1 describes STP-committee members across three time periods. **Table 2** summarizes average scores from the partnership survey coinciding with the end of each STP-Process, and labeled Time 1, Time 2 and Time 3. The mean of all dimensions of the partnership remained steady beginning at 87.1% and increasing to 87.7%. Dimensions, and aspects within each dimension with low average ratings compared to other dimensions and aspects, framed the interview questions. That said, interviews were based on aspects 4, 6–8, 15–17, 20, 21, 24 and 25.

Qualitative Exploration of the Partnership Survey

Interviews focused on each completed STP-Process. Interviews of 20–71 minutes were conducted with five members in Time 1, and seven in both Times 2 and 3. This section is organized in order of the partnership survey dimensions, with key themes organized under each dimension and/or aspect where applicable. Members also communicated suggestions for maintenance/improvements for partnership sustainability, future steps, and their overall thoughts on being involved. All names are pseudonyms to protect anonymity.

Section 1: General

The overall partnership was viewed positively and as an asset to health promotion. “Partnerships can work and that you don’t have to be all education and all fitness because you have the council¹, the band council programs represented in there as well” (Runner, Time 1). The project was valued in that, “It’s an asset to work together because if not, then each school would be doing it independently... By doing this [project] it’s at least showing the health promotion... and it’s not just through the gym” (Biker, Time 2). The project was also valued from a personal, educational, and environmental level.

I’ve been talking about it for a few years that we have to rethink our whole education and get kids involved with nature and getting them to understand the relationship between animals, plants and humans. [...] I mean even me, I’ve even started to notice a change, there’s something wrong with what I’m doing. But there are things people can do such as diet and exercise that will definitely thwart off all of that. (Skipper, Time 2)

Table 1: Characteristics of STP-Committee members across three time periods.

Variable	STP-Committee Members		
	Time 1 (8-months) %(n) n = 8	Time 2 (15-months) %(n) n = 9	Time 3 (19-months) %(n) n = 9
Organization			
KSDPP	37.5 (3)	33.3 (3)	33.3 (3)
Elementary School	37.5 (3)	44.5 (4)	44.4 (4)
Kahnawake Public Works	12.5 (1)	11.1 (1)	11.1 (1)
Kahnawake Community Protection	12.5 (1)	11.1 (1)	11.1 (1)
STP-Role			
Committee Member	100.0 (8)	100.0 (9)	100.0 (9)
Gender			
Female	37.5 (3)	37.5 (4)	44.4 (4)
Male	62.5 (5)	62.5 (5)	55.6 (5)

¹ “Band Council” refers to the Mohawk Council of Kahnawake, the community elected governing body of the community as per the Indian Act.

Table 2: Checklist for coordinated action and calculated mean scores of the STP-Committee after each STP-Process.

Partnership Items and Score (means 0–100)	Time 1 (8-months) n = 8	Time 2 (15-months) n = 9	Time 3 (19-months) (n = 9)
<i>General</i>	96.9	100.0	100.0
1. The partnership is an asset (to health promotion).	96.9	100.0	100.0
<i>Suitability of the Partners</i>	87.9	86.5	87.3
2. To attain the goals of the partnership, the right partners are involved.	96.8	88.9	91.7
3. Equity of the partners is essential for good collaboration.	90.6	91.7	94.4
4. The contribution of the different partners is to everyone's full satisfaction.	84.4	86.1	83.3
5. I have special interest in participating in the partnership because of my position or organization.	90.6	88.9	91.7
6. I am able to contribute to the partnership in a satisfactory way (time, means, etc.).	90.6	80.6	75.0
7. I feel involved in the partnership.	81.3	80.6	86.1
8. I can contribute constructively to the partnership because of my expertise.	81.3	88.9	88.9
<i>Task Dimension</i>	93.0	91.0	90.3
9. There is agreement on the mission, the goal and the planning within the partnership.	96.9	91.7	91.7
10. The partnership achieves regular (small) successes.	90.6	94.4	88.9
11. The partnership functions well (working structure, working methods).	90.6	88.9	86.1
12. The partnership evaluates progress at regular intervals and makes adjustments if necessary.	93.8	88.9	94.4
<i>Relation Dimension</i>	87.5	88.1	87.8
13. The partnership partners communicate in an open manner.	93.8	97.2	94.4
14. The partnership partners work together in a constructive manner and know how to involve each other when action is needed.	93.8	91.7	88.9
15. The partnership partners are willing to compromise.	90.6	83.3	88.9
16. In the partnership, conflicts are dealt with in a constructive way.	78.1	87.5	88.9
17. The partnership partners will carry out decisions and actions loyally.	81.3	80.6	77.8
<i>Growth Dimension</i>	81.3	84.4	83.3
18. I create goodwill and involvement for the partnership within my organization.	87.5	86.1	86.1
19. Giving feedback to the local officials on behalf of the partnership is satisfactory.	75.0	80.6	86.1
20. The partnership is willing to recruit new partners in the course of time.	81.3	84.4	83.3
21. The partnership succeeds in mobilizing others for actions.	81.3	83.3	77.8
<i>Visibility Dimension</i>	82.8	83.6	86.8
22. The partnership maintains the external relationships.	90.6	86.1	91.7

(Contd.)

Partnership Items and Score (means 0–100)	Time 1	Time 2	Time 3
	(8-months) n = 8	(15-months) n = 9	(19-months) (n = 9)
23. The partnership is seen as reliable and legitimate by external relations.	81.3	86.1	86.1
24. The image of my partnership in the outside world is good.	78.1	80.6	86.1
25. The partnership takes care of continuation after the project period.	81.3	78.1	83.3
Overall Mean	87.1	87.0	87.7

Nearing the end, members still agreed that the committee and project were an asset because, “The kids aren’t walking, so it means we have to do this [project] to get them to walk” (Biker, Time 3). At the same time, “Everybody that’s in on this says it’s a good idea. I haven’t had any staff [school] or anyone say otherwise yet.” (Biker, Time 3).

Section 2: Suitability of Partners

Several themes emerged in relation to aspects 4, 6, 7, and 8, which received lower scores (Table 2), across each time period and included: time; meeting attendance and consistency; perceived members’ contribution and involvement; the facilitator; communication; and actions required based on baseline data. For time, members were concerned about time management, limited availability to attend and contribute to meetings, and task assignments that were respectful of work-life balance.

You know it’s getting my time to do the extra work and trying to incorporate it into any kind of curriculum. But like, on top of that, my teaching and my extracurricular, and then this (STP-project) on top. [...] You know, trying to find the time. (Biker, Time 2)

Time management referred to attendance and involvement because, “If people are absent, then you don’t have a chance to participate. Well, I guess you do because you can respond to emails, but maybe that’s not the nature of people” (Runner, Time 1).

Involvement was also expressed as a transition into a champion/leadership role for the project within their own organizations, especially for those members closely linked to the schools. Yet, from a cultural and community perspective, “Well, here in the community, people taking charge. It’s always a team. Everyone contributes and helps. If someone is doing something on their own, then it gives them, but it’s not like taking charge. It’s more like ‘can you do this?’” (Skier, Time 2). Nevertheless, there was an expressed need for an individual facilitator to maintain and lead the STP-Committee because, “The number [survey score] would be zero if you [facilitator] weren’t here. So, considering nothing was done a year ago. You know, nothing like this existed for us” (Scooter, Time 2). Moreover,

It framed some of the things that we have to be mindful of. The planning part and some of the safety factors that I didn’t consider, you know? It was good that [facilitator] kind of led us through that. (Skipper, Time 2)

Although various forms of communication throughout the project occurred, including phone, email, and group and in-person meetings, some members felt unfamiliar with others’ thoughts and input, especially if a meeting was missed. Once project findings were shared, communication flourished with the need to act on issues. However, members anticipated rejection of the findings and cautioned over timing of release.

Section 3: Task Dimension

Members perceived that all were working to achieve tasks, the project was moving forward, the process had been straightforward and easy to follow, and the project had a good documented track record of success.

Well, like I said, I agree with everything. The partnership, the successes, all the methods. I haven’t seen anything that needed any adjustments really. If they are occurring, to me it seems that it’s just moving with the flow. I don’t see a side step and then getting back on. To me it seems that everything is flowing (Scooter, Time 2)

The facilitator's organization was also highly valued.

It was so organized! It's just getting the people involved that's all. So, all our tasks and everything we had to do was straightforward. [Facilitator] had enough reminders, we had enough you know so that's going on. It worked well to get the others involved as well, because [facilitator] took on all the stress of the organizing and planning. So, a lot of it was just like 'here do this,' which makes it easy. (Biker, Time 2)

By Time 3 with the facilitator's impending departure, mixed feelings emerged. For continuation, "I believe it's a necessity that we have to work together to be these successes. Hopefully we move and continue to move in the direction we're heading" (Scooter, Time 3).

Section 4: Relation Dimension

Compromise, conflicts, and carrying out decisions loyally emerged in this dimension. Although some agreed there is always room for compromise at Time 1, others wondered who they expected to compromise with because, "There is no compromise for *our children's safety*" (Scooter, Time 1). Yet, by Time 2, compromise became a necessity for the STP-Committee to function, based on members' differing organizational policies that may conflict with the STP-Committee and limit their participation and support. For example, principals were perceived as the gatekeepers for project success "Ya, well I'm willing to compromise with partners, but it's the most important ones, the principals and their input. My job is to assist, so whatever they decide is, it affects how much I have to do" (Skier, Time 2). Similarly, and only appearing in Time 1, concerns arose around conflict.

No, I haven't really seen conflict. If it was a conflict it would probably be constraints on the time that people have. We only have an hour and if somebody has to leave or has to excuse themselves, then that would probably be the only conflict. (Scooter, Time 1)

Finally, carrying out decisions loyally appeared in all three-time periods. For Time 1, members indicated that few tasks had been assigned in the first eight months, but that this was a time for information sharing and roundtable discussions. By Time 2, loyalty was perceived as attendance to meetings because in a, "Couple of meetings there were only four of us and you've got tasks to hand out and you [facilitator] couldn't really expect three of us to do it. I think the ones that were there were the loyal ones" (Skier, Time 2). Failing to follow through with actions, including data collection activities was also negatively perceived because, "One of the things was we had one action, was the data collection. People who were supposed to show up didn't show up, me included" (Walker, Time 2). By Time 3, concerns shifted towards facilitation because, "We have to start making these decisions because if not, we may all be looking for [facilitator] to do it. If it wasn't cleared up at the last meeting, then the next one it will need a little bit more filtering of that topic and then saying, 'okay we need to start to get people to commit to doing things'" (Walker, Time 3).

Section 5: Growth Dimension

In terms of growth, willingness to recruit new partners appeared across each period, however with caution of balance. More specifically, it's about, "Nurturing the partners within the meeting, which is then using that, why are we here thing. We're here for the kids...We could get caught up in the work and then you kind of forget about the vision" (Runner, Time 1). By Time 2, all members expressed the need to recruit new partners, yet this was perceived as the facilitator's and KSDPP's responsibility, "Well, I've seen [facilitator] do it because it's their job and it's their work. I haven't seen it, or I'm not paying attention to it. So, it doesn't mean it doesn't happen" (Runner, Time 2) and "I mean there's always something going on at KSDPP regardless of what we're doing. There's always that partnership that's always moving forward with healthy living." (Scooter, Time 2). At Time 3, members were confused by the low score as all members recruited from their networks, most notably forming in-school STP-Committees.

In terms of mobilization, the STP-Committee itself was proof of successful mobilization, because, "We mobilized each other. So, I made people think that sitting outside collecting data was fun" (Skier, Time 2). This form of mobilization externally was anticipated to occur during implementation once word of the program spreads because, "You know people say, 'get the message out 6-months ahead of time.' Well nobody listens until a month ahead or 2-weeks before" (Rollerblader, Time 2).

Section 6: Visibility Dimension

Aspect 24 and 25 were of particular interest. Members believed that being embedded within KSDPP, which was well recognized in the community, helped the image of the STP-Committee. However, KSDPP's dissemination process, may have created a 'behind closed doors' feeling resulting in low community awareness.

I think that it's not good. It's just that it's not out there. I don't think the parents know. They're doing the surveys, but they don't realize there's a committee doing all this extra. [...] They (community) need to be reminded that there's a partnership from the different schools and organizations. (Biker, Time 2)

Timing of dissemination was key for the partnership's image in terms of potential feedback as, "We're behind closed doors dealing with how to put it out there. The next thing is for people to accept it." (Scooter, Time 2).

Reflecting on continuation, initially members were concerned about both the people-power required to implement school AT programming, as well as, the duration of the project. They also reflected on their shifting roles throughout the process. However, the shift into action planning and implementation, brought up some concerns, especially surrounding a leading facilitator because, "If [facilitator is] not involved, it's going to go downhill, it's going to fall apart. It's not established enough yet to see someone else take over" (Walker, Time 2), and "It will need a facilitator. Ya know, everyone still needs that one person to say, 'okay this is when the next meeting is' so someone to be taking charge" (Biker, Time 2).

Section 7: Next Steps and Final Remarks on the STP-Committee and Project

At the end of each STP Process, members provided suggestions for improvements or maintenance, including: maintain current committee members as a forum of 'round-table discussions'; ensure review, understanding and adherence to terms of reference, project timeline, and roles and responsibilities; increase communication among committee members and between schools; and develop and implement broad dissemination strategies to increase awareness of committee, project, and findings. Nearing the end of the project, members also suggested the need for a new facilitator to lead, as well as, the development of in-school sub-committees to support continuation of the committee and project. As part of this, recruitment of new members and other organizations not currently involved with STP was highly recommended. Yet, at the same time, members saw opportunity to merge the STP-Committee with related KSDPP committees due to overlapping members as a means to develop a coordinated and united front. At the end of the project period, members recognized the need to implement the STP-Action Plans at a steady pace to ensure all aspects required are considered and accounted for, including shifting members' roles into action-oriented agents, and defining success.

At the end of each partnership interview, members were asked to reflect on each STP-Process in terms of their experience and what they believed would be the future next steps of the committee as they progressed into each subsequent process. Upon completion of STP-Process 1, the committee was perceived as having a good core of people who were dedicated, focused, cohesive and who had a lot of interest in the topic to support momentum in achieving goals. Although some members expressed uncertainty regarding the larger picture, these individuals were looking forward to seeing the baseline data. In terms of taking eight months to complete STP-Process 1, one member indicated that, "We've had to get educated, we've had to kind of you know...understand the complexities of what we're trying to do here. And get buy-in and people to support it. So, let's eventually implement it and see how its goes" (Skipper, Time 1). As the transition into STP-Process 2 was nearing, members were eager to begin data collection and action planning, and to ensure STP-Committee members were involved in data collection, analyses and interpretation. At the same time, members generated new ideas about data collection and dissemination, and program planning, all of which were fed back into subsequent meetings. As an example, dissemination of project ideas and findings to parents and the broader community would support information being, "transferred to the other schools. [...] I think the good thing would be taking the teachings from this and turning this into that 'how-to' manual or a training piece" (Runner, Time 1).

At the end of Time 2, members' reflections shifted towards three main themes including: STP-Project flow; STP-Committee meeting and work structure; and STP-Project future steps. The overall project was perceived to have potential and to be good for both schools. Although some were anxious about the project moving

too slowly, others believed it was moving at a steady pace allowing members to see and understand the data, as well as potential barriers and facilitators of school AT. Members believed that the project had the potential to impact the broader community, “from individuals driving vehicles very short distances to get to work, to the community governors creating policies and having them enforced to better ensure the safety of children and anybody walking on the streets” (Runner, Time 2). In relation to the STP-Committee meetings and work structure, many were pleased that members continued to meet on a regular basis because in other committees or projects, “...usually it’s four to five meetings and that’s it. And then three years later you get a report.” (Skier, Time 2). Meetings were believed to be a place where people worked well together to discuss and achieve tasks. However, some members still perceived that most of the work was on the shoulders of the facilitator, with some members feeling overwhelmed with assigned tasks.

At times I’ve been frustrated, ‘like oh my goodness another project’. Sometimes, I’m a little more eager. [...] Other times, it’s like, ‘I don’t need this extra thing,’ especially when life is crazy and life in this building is always crazy. [...] On the other hand, when you listen to the data collection, you get involved. (Walker, Time 2)

Prior to transitioning into STP-Process 3, members generated new ideas to explore related to dissemination of findings, links to curriculum, and recruitment of new partners. For dissemination, community presentations were explored with mixed feelings, as some members believed these should be done by key organizations, such as the Mohawk Council of Kahnawake and at schools, and others believed presentations would result in a lot of effort with a poor turn-out as, “We have meetings for different items and agendas, and they don’t come. It’s hard... really, I don’t think they would come for an update for this” (Biker, Time 2). Alternative ideas included a summary of findings flyer followed by delivery of a full report to key community organizations, student take-home flyers providing mapped routes to school with details of steps, time and distance, and cost-benefits messaging related to school AT.

Potential new partners were identified to be recruited to help with STP including: Peacekeepers (local police officers); school and health education teachers; Kahnawake Fire Brigade; Emergency Medical Technicians; Mohawk Council of Kahnawake; Kateri Memorial Hospital Centre; Kahnawake Education Center; and Kahnawake Combined Schools Committee. Yet, timing and purpose of recruitment was still considered crucial. With regards to education, members saw opportunities to incorporate AT-related materials into health and physical education curricula. There was an acknowledged need to, “start talking about education and educating the public on safe travel,” because, “two different things happen in the schools but it’s still education. And some people think of education differently” (Scooter, Time 2). However, this was met with apprehension due to teachers’ willingness to take on extra curricula work.

At the end of the project, members expressed their overall enjoyment as, “It was interesting! You know I liked going there [meetings] at lunch time, meeting the people and their ideas, seeing the project going through and doing the data collection” (Skier, Time 3). Members were also impressed with each other’s strong level of involvement and commitment for 19 months. Most notably, members reflected on what they learned about school AT, including walking school bus programs and what other Canadian and international schools have accomplished with school AT. Before the project began, “there’s a few things we knew about ahead of time. First and foremost, it was the safety aspect of it. Ya know, parents are extremely over protective” (Rollerblader, Time 3). Through involvement in the STP-Project members were able to validate preconceptions and learn about newer issues and ideas. “When we get the information about rolling stops, the amount of kids that walk to school, where they live in comparison to their school, like in terms of the whole logistical map and all. I think it’s extremely informative” (Rollerblader, Time 3), and

I learned that if you’re going to be involved in this project you need to have a lot of people to get something done. I mean I didn’t realize until after we did all those observations and surveys that people don’t follow traffic rules and how it’s not the dangers of kids getting kidnapped or stolen. [...] It’s more of getting hit by locals. It’s the locals mostly who do the rolling stops and it’s mostly the locals who do all the traffic violations. (Biker, Time 3)

Finally, as the committee prepared for STP-Action Plan implementation, members envisioned continuation of the STP-Committee with current and/or new members to support implementation, and that each school would form an in-school committee to support their STP-Action Plans. They also suggested that the

KSDPP Wellness Committee could ensure continued support for the project, as well as reducing the number of meetings to attend. Ways to continue to promote STP to the broader community included requests to the local police and the local hospital to conduct their own media promotions and/or presentations. All ideas were documented to feedback, explore and discuss as the committee embarked on STP-Action Plan implementation.

Discussion

Health promotion research seeks ways to respond to community perspectives of health issues, needs, or concerns, while at the same time, enabling people to increase their control over, and to improve their health (Green et al., 1995; WHO, 1986). The STP-Process seeks to achieve this by engaging multidisciplinary partners throughout (Green Communities Canada, 2016). A recent evaluation of 34 ASRTS STP-facilitators revealed that there was a need to recruit and engage relevant stakeholders at both the school and community level for greater buy-in, involvement and commitment towards lasting school AT programming (Mammen, Stone, Buliung, & Faulkner, 2015).

In this study, combining CBPR and ethnography with the STP-Process was a worthwhile approach that allowed community members and the researcher/facilitator, with experience in STP, to better understand the local conditions, culture, facilitators and barriers to successfully carry out action planning. Nested within KSDPP, an established CBPR project, we used CBPR to develop a new community-researcher partnership, which incorporated joint decision-making throughout the three STP processes. Guided by ethical principles of KSDPP (KSDPP, 2007), all committee members were involved in data collection, interpretation of findings, and translating findings into individualized STP Action plans (e.g. walking school buses) for two Kahnawake elementary schools. The STP-Committee transferred ownership of these evidence-based and contextually appropriate plans to the implementation process, by developing new in-school committees to lead. CBPR promotes collaboration, builds on community strengths (Israel, Schulz, Parker, & Becker, 1998), and promotes both knowledge translation and self-determination (Cargo & Mercer, 2008). This helped to bridge gaps between research and practice and created conditions that facilitated the STP-Committee members to have control over the research, and eventual control over the resulting STP-Action Plans (Berry, McQuiston, Parrado, & Olmos-Muniz, 2013; Cargo & Mercer, 2008; Israel et al., 2013; Minkler & Wallerstein, 2008). At the same time, mutual education of researcher and community members allowed for bridging emic and etic understanding (Patton, 2002b), and capacity building of both (Jagosh et al., 2012). Most importantly, cultural interpretation gave meaning to the ways in which all stakeholders' experienced and perceived the knowledge gained through the STP project. For example, knowing about preconceived pedestrian-traffic concerns and then observing actual pedestrian-traffic during peak school hours through data collection activities, allowed both the researcher and committee members to bridge their knowledge and understanding of the concerns and issues. In doing so, the process allowed for further discussion on how best to address pedestrian-traffic safety at each school based on the knowledge and capabilities of the schools and community.

Ethnography has recently been adopted by researchers for program evaluations (Nastasi & Berg, 1999; Patton, 2002b). Although ethnography added another layer to an already complex project, it allowed for multiple interactive ways to uncover and understand the unique progress, processes, culture, and experiences within an Indigenous community. Undertaking STP requires coordinated action, and involves processes that can be complex and dynamic due to the nature of stakeholders' perspectives, values and background (Butterfoss, 2007; Koelen, Vaandrager, & Wagemakers, 2008). Although a multitude of evaluation methods can be employed (Nastasi & Berg, 1999), this study focused on and utilized meeting minutes as well as a partnership survey repeated three times, followed by interviews with community members as a means to put community voice and perspectives forward.

Assessing the partnership via survey and following up with interviews allowed for greater understanding of the survey results. In doing so, emerging discrepancies were identified, discussed, and resolved to ensure STP-Committee members had mutual and continued understanding of the overall project. Although tools exist to measure partnerships, partnership progress is seldom measured, evaluated, and reported (Wagemakers et al., 2010). Utilizing the checklist, which acts as a tool to evaluate partnership progress, helped to enable the facilitation process throughout each phase of a STP-Committee partnership including initial mobilization of partners, planning, implementation, and evaluation. Quantitatively assessing five specific topic areas (suitability of partners, tasks, relations, growth, and visibility), allowed for identification of successes and areas requiring improvement for a sustainable partnership. For example, when pilot testing the tool with six unique partnerships, individual scores revealed differences of views on some of

the dimensions. Through qualitative interviews, these differences were revealed and subsequently fed back into discussion with the partnership. In doing so, the tool and process contributed to improved mutual understanding and direction (Wagemakers et al., 2010). As such, one of the strengths of this tool is that it provides a “starting point for discussion among members in a partnership” which contributes to generation of actionable knowledge (Wagemakers et al., 2010). Furthermore, pilot testing among multiple partnerships contributed to its external validity, and cross-checking and discussing results among partners contributed to its reliability (Wagemakers et al., 2010). Within in our study, the overall survey results were very positive as the mean of all dimensions was 87.1% at Time 1 increasing to 87.7% at Time 3, indicating a strong partnership and good overall agreement of the dimensions. The majority of means were in the 80s% and 90s% and the lowest mean was 70%. The interviews focused on those questions with the lower ratings in order to better understand the results and to strengthen the process.

Key Findings of Undertaking the STP-Process

Both CBPR and ethnography facilitated and contributed to many successes and benefits over 19-months. Key successes and benefits include: a) generated capacity to recruit community partners towards a lasting and trusting relationship; b) generated capacity of the community partners and researcher; c) established and guiding terms of reference leading to culturally and logistically appropriate research; d) achieved all data collection activities; e) partnership synergy accumulated capacity to sustain project goals beyond post-the funding period. Similar findings have been reported in the literature (Israel et al., 2013; Jagosh et al., 2015; Jagosh et al., 2012; Macridis & Bengoechea, 2015; Salsberg, Macridis, Bengoechea, Macaulay, Moore, & On behalf of the KSDPP School Travel Planning Committee, 2017a; Salsberg, Macridis, Bengoechea, Macaulay, Moore, & On behalf of the KSDPP School Travel Planning Committee 2017b; Schensul, Berg, & Nair, 2013).

Understanding of timing of recruitment was key and required alignment with implementation to ensure lasting commitment. Through recruitment and this long-lasting partnership, trust among members developed and contributed to growth of the committee (Jagosh et al., 2012). Similar outcomes were found in other ASRTS partnerships who found success in terms of mobilizing existing and new partners, which in turn helped to maintain a lasting partnership to support ongoing school AT initiatives (Buliung et al., 2011; Geraghty et al., 2009; Staunton, Hubsmith, & Kallins, 2003).

Combining a CBPR approach with ethnographic evaluation contributes to understanding the process of developing STP-Action Plans along with barriers and facilitators that may contribute to the process. To our knowledge, this is the first research documenting the experiences of STP from the perspective of community members on undertaking ASRTS' STP-Process within an Indigenous context. At the same time, findings are similar to 34 facilitators of ASRTS STP as found in Mammen et al., (2015). Examples of similarities include: the need for collaboration with multidisciplinary stakeholders, the strong leadership of a facilitator, and the need for more time to achieve STP tasks. With regards to strong leadership in this study, the facilitator brought expertise and experience in undertaking STP in previous work and was able to navigate the STP-Committee through each process. At the same time, being an “outsider” to the community was perceived as valuable as the facilitator was able to keep everyone on task without straying too far from the goals of each meeting.

As with any success, challenges were endured throughout related to both the people involved and to the research. Challenges, as perceived by committee members and confirmed through reflexive journaling, included: a) Limited time and availability; b) Staying on task during meetings; c) Defining roles and responsibilities; d) Communication and feedback; e) Perceptions of unequal power; f) Coordination of three KSDPP projects; g) Data collection fidelity; h) Inability to recruit new partners; i) Delays in dissemination approvals; j) Committee's hesitation during action planning. Many of these challenges are illustrated in CBPR, ethnography, and STP literature (Berry et al., 2013; Macridis & Bengoechea, 2015; Schensul et al., 2013). The most common challenge identified in the literature is time (Schensul et al., 2013). Specific to this study, members indicated that it was difficult to find time to attend meetings, to keep track of time within meetings, to provide feedback on documents, to participate in data collection activities, and to begin assigned STP-Action Plan activities. Regarding absenteeism, members felt that discussions and decisions were delayed, which was also found to slow progress in STP work by Heinrich, Aki, Hansen-Smith, Fenton, and Maddock (2011). To highlight another example listed above, perceptions of unequal power rarely occurred, yet was discussed in terms of some committee members being more vocal at meetings or taking on more tasks than others. However, this was also perceived as each individual having a different skill set or set of knowledge to best address the topic.

Since implementation in October 2014, the STP-Committee remains strong as it evolved into a permanent Schools Wellness Committee, meeting every six weeks. Combined, the committee has been a moving force

working towards implementing and updating the STP-Action Plans to ensure continuation. Networking actions and support have grown within each school with the development of in-school STP-activities. To further highlight the project's sustainability, and with no new research funding available to follow-up, general KSDPP observations indicate a greater awareness of the importance of school AT, as well as, seeing more children using AT during and outside school days.

Limitations

CBPR seeks to engage end-users throughout the research, however children and youth, end-users of the resulting programming, were not involved. Community members were involved in STP data collection activities, but were not trained in ethnographic activities. This paper focused on the first three STP-Processes, aligning with the first author's doctoral program timeline and funding period, and did not continue into implementation, evaluation and maintenance processes.

This paper also did not overly highlight the first author's reflexive journaling, which was merely utilized to confirm processes, evolution, and cultural understandings throughout the project duration. Rather, the paper focused on insider community perspectives – putting community voice first. The high scores obtained through the partnership at each time period in the paper suggest a strong partnership throughout. However, it may also point to limitations in their ability to personally critique aspects of their own efforts. At the same time, all members of the STP-Committee were aware of the then 20-year-old KSDPP as a whole and its community efforts to support health promotion in the schools and broader community. Some STP-Committee members, such as the school principals, had been involved with previous KSDPP initiatives and may have perceived the initial partnership with high regard as this project was housed within KSDPP. This may also have applied to all STP-Committee members due to KSDPP's high community profile and was not fully accounted for in this study. Finally, limited funds and lack of facilitator/researcher continuation, committee members wished to take a break from research and focus on implementation. Although limited from a research perspective, from a CBPR perspective, it was important to respect their needs.

Conclusion

Few studies exist that explore the processes of STP to the point of providing contextual and cultural perspectives towards all aspects of the research; especially for community specific STP-Action Plans. This study offers insight on the participatory process of engagement that may be appropriate for adaptation and modification when adopting STP-Processes to all communities.

This study illustrates the value of incorporating both a CBPR approach with ethnography for evaluating the process of developing STP. Undertaking research, while fully engaging community members, increased the knowledge and understanding of school AT and the STP-Process for members and researchers alike. In doing so, this project contributed to evidence-informed practice for KSDPP's objectives to promote active living through school- and community-wide interventions. At the same time, this project met the needs of the KSDPP PA Policy objective of increasing PA opportunities through AT. Finally, this study sheds light on stakeholder perspectives of undertaking school active transportation program planning and also documents how to promote community ownership that began with a researcher's expertise. (Salsberg, Macridis, García Bengoechea, Macaulay, Moore, & KSDPP School Travel Planning Committee, 2017b; Salsberg et al., 2016). Evolution of community ownership of this project was formally analyzed through social network analysis (Salsberg, Macridis, Bengoechea, Macaulay, Moore, & KSDPP School Travel Planning Committee, 2016; Salsberg et al., 2016). The findings can inform the practice and provide support to others, in Indigenous and non-Indigenous communities, currently or planning to undertake similar projects.

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Competing Interests

The authors have no competing interests to declare.

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