Engaging Canadian Youth in Conversations

Using knowledge exchange in school-based health promotion

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Currently, youth spend less time being physically active while engaging in more unhealthy eating behaviours than ever before. High rates of unhealthy behaviours such as physical inactivity (Active Healthy Kids Canada 2011; Freeman et al. 2011), unhealthy eating (Butler-Jones 2008) and tobacco use are placing Canadian youth at risk of health problems such as increased levels of overweight and obesity, cardiovascular disease and type 2 diabetes (Morrison, Friedman & Gray-McGuire 2007; Vanhala et al. 1998; WHO 2012). It is estimated that obesity rates in Canadian children and adolescents have increased threefold in the last two decades (Active Healthy Kids Canada 2011). In 2010, 30 per cent of youth in Prince Edward Island (PEI) were overweight and obese and that rate had remained stable between 2008 and 2010 (Murnaghan 2011). Further, in line with Canadian averages (Roberts et al. 2012), only 45 per cent of youth in PEI currently meet the national daily physical activity guidelines (Murnaghan 2011), as recommended by the Canadian Society for Exercise Physiology.

It is important to consider the school context when examining the health behaviours of youth, as they spend a large portion of their time in that environment. In relation to the school context and health-specific programs and policies currently implemented in PEI, the provincial government regulates the nutrition policy that is implemented in all schools in the province and manages the physical education and health curriculum. However, the schools are fairly autonomous, in that approaches taken to meet educational outcomes, as set by the province, can be dynamic and specific to each individual school. Schools take it upon themselves to initiate or implement health-related programs or school policies beyond those outlined by the provincial government or school board/district. For example, if a school identifies bullying as an issue of concern, with support from the provincial government and school board, the school takes the initiative to implement a program or policy to work through and resolve the issues. The provincial government fully

supports individual schools in taking initiative to facilitate healthy behaviours in youth, above and beyond the curriculum outcomes as outlined by the province.

For the first time ever, youth have a shorter life expectancy than their parents (Butler-Jones 2008). Hence, the urgency to promote the health of youth. According to Hanson and Gluckman (2011), the greatest leverage of risk reduction can be achieved through timely intervention early in life. Considering the amount of time youth spend in school settings, the school context is an ideal environment to initiate and facilitate healthy behaviours. Solutions are needed to identify effective strategies to improve youth health outcomes. The problem, however, is that little is known about how to engage youth voices in developing youth health programs and policies. Consistently, the inability of youth health policy, practice and research stakeholders to engage youth/students in health promotion has been documented in youth health knowledge exchange literature (Morrow 2001; Wong, Zimmerman & Parker 2010), as well as by provincial stakeholders in PEI. To address this gap, a key objective of our youth health research and of the provincial stakeholders in PEI was to capture perspectives from youth themselves.

In the past 10 years, knowledge exchange (KE) has emerged as an important component in the research process (Mitton and Perry 2007; Straus, Tetroe & Graham 2011). The Canadian Institutes of Health Research (CIHR 2014) defines knowledge exchange as a 'dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products, and strengthen the health care system'. There are varying terms describing similar processes, including knowledge translation, knowledge transfer, and dissemination, among others, and with these varying terms come varying definitions. However, ultimately, successful knowledge exchange involves the sharing of information and uptake of knowledge to inform action.

Initially, knowledge exchange took the form of producer push where evidence was pushed by researchers to stakeholders (Leatherdale, Manske, Wong & Cameron 2009), but this was found to be ineffective (Dobbins, Ciliska & DiCenso 1998). Instead, knowledge exchange through two-way communication between researchers, decision-makers and practitioners has been found to be more conducive to evidence-informed action (Clark et al. 2010; Lavis et al. 2003; Wilson et al. 2012).

Often, knowledge exchange occurs between researchers and policy-makers with little involvement from practice perspectives (Nixon et al. 2013; Tugwell, Knottnerus & Idzerda 2011). Previous research has identified that knowledge users should be involved in identifying problems and creating knowledge itself for knowledge exchange to be most effective (Gagnon 2011; Graham et al. 2006; Ward, House & Hamer 2009). However, there continues to be a gap

in the knowledge exchange process between knowledge creation and knowledge use by researchers and practitioners both (Graham & Tetroe 2007; Graham et al. 2006; Ward, House & Hamer 2009).

In 2009, Prince Edward Island, along with six other Canadian provinces and two national bodies, joined to form Youth Health Collaborative: 'Excel'erating Evidence Informed Action (Youth Excel), which was designed to better understand and build capacities for KE to advance youth health goals. As part of Youth Excel, Prince Edward Island (PEI), along with New Brunswick (NB) and Manitoba (MB), were identified as leaders in youth health knowledge exchange. A major contributor to the identification of PEI, NB and MB as leaders in youth health knowledge exchange was that all three currently implement a youth health data collection and knowledge exchange system that operates on a two- or three-year cycle, depending on the province. In PEI, the School Health Action Planning and Evaluation System – Prince Edward Island (SHAPES-PEI) is a biennial data collection and feedback system, implemented since 2008, that collects information from a population of interest, and then provides information back to stakeholders (i.e. schools) to inform actions, including programs or interventions. Year 1 of SHAPES-PEI involves administering self-report questionnaires to students in grades 5 through 12 that ask questions regarding four main health behaviours (healthy eating, physical activity, mental fitness or positive mental health, and substance use). Eight to ten weeks following the data collection date in each school, the school administrator receives a school profile and summary results, with school-specific results that can be shared with teachers, students, parents and community members. Year 2 of the SHAPES-PEI cycle involves further discussions with schools, communities, government and non-government representatives regarding the school or provincial profile results, as well as coordinating a School Health Grant program that provides some financial support for schools to implement healthy programs based on the school's SHAPES-PEI results.

As a result of the data collection and knowledge exchange systems currently operating in PEI, NB and MB, the three provinces conducted case studies to document the successes and challenges involved with the development and implementation of their knowledge exchange systems (Murnaghan et al. 2013). While each province had their own individual case study objectives, overall the case studies aimed to: (1) examine ongoing initiatives/activities and document lessons learned with respect to building capacity in collection of local data, interpretation and synthesis of data, utilisation of knowledge to take action and generation of evidence from action; and (2) to help discern realistic outcomes from these knowledge exchange networks. As part of the SHAPES-PEI system, one of the main goals is to encourage dissemination of the results, at the same time supporting the use of evidence to inform action in schools, with a particular focus on including youth in this process. Therefore, the provincial case study, as part of Youth Excel,

provided researchers in PEI with an opportunity to explore with students what youth health issues were of most importance to them and how to encourage youth to engage in healthy lifestyle behaviours. The purposes of this article are to: (1) present the findings from a youth perspective on youth health issues; and (2) present lessons learned from the youth focus groups.

METHOD

Research Design

Yin's (2009) case study design was used to describe youth health knowledge exchange experiences and capacity. A case study research design was chosen in order to gain an in-depth understanding of knowledge exchange as a complex social phenomenon within the real-life context of youth health (Yin 2009).

Procedure

Krueger's (1994) focus group methodology was used to gather data regarding collective experiences, understandings and perspectives of youth. Student focus groups were conducted at three schools over one school term in the fall of 2010. All three schools had participated in the SHAPES-PEI survey two years previously, and would be participating for a second time during the 2010–2011 school year. Overall, seven focus groups, plus one follow-up focus group, were held. Following recommendations by Krueger (1994), focus groups involved 10 or fewer students, were either gender specific or mixed, and involved either high school students only or junior high and high school students combined.

Semi-structured interview guides (available upon request from author) were used for the focus group sessions. The questions were general in nature and did not focus on any particular behaviour, but were more concerned with what the students thought to be the most important health issue. The semi-structured interview guides were developed through consultation between the research team and the provincial steering committee, which allowed for open discussion. Questions focused on eliciting student perspectives on school/youth health issues and the roles of schools and students in health promotion. Probes were used, as needed, to explore concepts more fully. Active consent was obtained from parents and written informed assent was obtained from the students prior to participation in the focus groups. Two research team members with expertise in qualitative research facilitated each of the focus groups. Focus group discussions lasted one classroom period, approximately 45–60 minutes, and were held at a location and time that was most convenient for both schools and students. Discussions were audiotaped and transcribed verbatim and facilitators' field notes were recorded (Halcomb & Davidson 2006).

Students were not provided compensation and ethical approval was obtained from the University of Prince Edward Island Research Ethics Board and appropriate school boards.

Participants

Purposive sampling was used to identify schools and school contacts through nominations of teachers and principals by members of the Youth Excel provincial steering committee. Student participants who best represented the diversity of the school were nominated by the school contact. Fifty students representing schools from each of the three school boards (two English and one French) participated in the focus group discussions. There were no refusals to participate and only one recruited student did not participate due to absence from school.

Qualitative Analysis

Data management, synthesis and analysis activities were concurrent, iterative and ongoing.

NVivo 8/9 software was used to manage and analyse data. Analysis focused on thematic survey and conceptual/thematic description (Sandelowski & Barroso 2003). Based on an analytic framework, 'units of meaning' arising from the texts were condensed into a set of thematic codes for each focus group. In keeping with Leininger's (1985, p. 60) work, the analysis included understanding how data from 'components or fragments of ideas or experience' allowed for a richer understanding of the data.

Data analysis included utilising a priori codes as identified in youth engagement literature. As themes emerged, codes were revised and new codes were added, as needed, on an ongoing basis throughout the iterative analytical process. Member-checking was employed to reach saturation, to ensure thorough understanding of emerging themes, and to ensure that findings reflected the contributions of the participants. Due to timing (end of school year), we were unable to conduct member-checking with all of the original focus groups and were only able to conduct one follow-up focus group.

RESULTS

Students from grades 7–12 participated, with a majority of the sample representing grades 10 and 11 (84 per cent). Overall, there was an equal (50 per cent) distribution by gender (n=25 females, n=25 males). Results were organised into the four common themes identified by students regarding youth health issues and improving youth health, as discussed below. While the results presented are not comprehensive of all the topics students shared, they do convey the common themes that emerged across the focus groups.

Youth/School Health Issues

Cafeteria food and services

Students were asked to describe what school health meant to them and to identify what they thought was the biggest youth or school health issue. A predominant issue across all the focus groups was food quality and price in their cafeterias. While a few students did mention that healthy options were available, students overwhelmingly complained about food quality and price. As one

student said about their cafeteria's food now as opposed to previous years, 'it is not as good taste wise, but better health wise'. *(FG2 – F)*

Often, students felt that problems with the cafeteria resulted in students purchasing food from fast-food outlets. Unappetising food, high costs and long waits in line-ups were all mentioned as contributing factors. One student stated:

> *The cafeteria has a lot of healthy food, but the prices are too high. If there was a way to lower the prices ... people would be like, 'oh I am not driving all the way to Wendy's if I can get something here, and it is cheaper. (FG1 – F)*

Students were aware of the fast-food options available near their school and stressed that many students would choose that option, whether due to price, food quality/availability, or a desire to get away from the school environment for a short time. In one school, the students described how moving from their old school, located within walking distance to fast-food restaurants, to a newly constructed school situated outside of the town had impacted their food choices during lunch.

Physical activity

Another youth/school health issue identified was the lack of opportunities for physical activity at school. This was particularly true for senior high school students and for students from smaller schools where there were fewer classes and extracurricular activities/sports options. Some students felt that social pressures might be impacting physical activity levels. In one all-male focus group, some junior high students thought that girls were not as interested in physical education as they used to be: 'I find the majority of girls are getting less and less, like they don't like gym as much. In elementary school, everybody looked forward to gym and was excited and stuff, but now I think the girls like it less and less, for the most part.' *(FG3 – M)*

Bullying

Bullying was identified as an issue in all focus groups. In one school, students thought bullying was a bigger issue for junior high students. As one student explained:

> *Junior high, bullying I would say is a pretty big problem … I notice it, I notice it a lot. I am one of the people who are getting bullied sometimes, too. There are the few people who will really, really everyday get on you, but then there are some people who will just [go] off and talk to their friends about you type thing … (FG3 – M)*

Some students preferred not to call it 'bullying': 'I wouldn't say bullying, because it is not people going up and making fun of other people, it is more like, I wouldn't even say face-to-face stuff, just like different groups clashing.' *(FG1 – M)* In one exchange among students, they went from thinking bullying was not an issue to recognising that it might be:

Male 1: I don't know if [it's] bullying so much rather than just mocking. But sometimes you don't even know if they are just kidding around as friends or if it is more ...

Female 2: It just depends, some kids they get picked on.

Male 1: It happens either not at all or a whole lot. Everyone in the school picks on each other as a joke, or because they don't like the people.

Female 2: Some people get picked on too much. Everything they do, they get made fun of.

Male 1: Yeah, it gets really serious in those cases. (FG2)

In one school, students considered physical acts, such as pushing another student, to be bullying, but did not label verbal behaviours, such as spreading rumours, in the same way. They recognised that it was poor behaviour, but did not specifically call it bullying. As one student explained, 'I think because everyone is a bully. Like we've all done it, so I don't know, it's just, everyone's like, I know I've done it, not all that, but some of it. And I don't know, I guess for me I'll at least own up to it, to actually say that I'm a bully. It's like, I don't know, it knocks your self-esteem a little bit.' *(FGMemberchecking – F)* Students also shared their perceptions regarding different bullying behaviours between males and females: 'It seems girls pick on girls and boys pick on boys, but the boys are more aggressive and the girls do more verbally talking.' *(FG4 – F)*

Factors Facilitating Healthy Behaviours

Students spoke extensively about what they thought their school and students were doing, or could do, to improve youth health. In all schools, students identified good things their school was already doing, including clean and well-kept school environments, availability of facilities (e.g. gymnasium, fitness room), healthy selections at the cafeteria, breakfast and snack clubs, no vending machines, anti-smoking/alcohol/bullying policies, and other health-promoting policies.

According to one student, their school is 'doing a good job now. They are promoting a lot of healthy stuff. They put in weights, treadmills, and in the cafeteria all the food is healthy.' *(FG1 – F)* At another school the students described a recent school-wide activity to promote physical activity:

Student 1: When the Olympics were here, we did Footsteps to Vancouver …. We did a thing where the number of laps you run around the gym is equal to 1 km, so if you run this amount of laps around the gym, it is 1 km, so students could go after school, or during lunch, or phys. ed. classes and people would run, and we had a giant poster that went across the wall.

> *Student 2: It was pretty fun. It really motivated a lot of people. Before, in grade 7, I never used to run. Once this Olympic run came, all the teachers were really adamant that we do this, and they even had the staff, the staff could go in and do it. I saw a lot of staff do it. (FG3 – M)*

Many spoke about their teachers and school staff acting as role models for them and encouraging the use of fitness equipment and other healthy choices. Students in one school really valued the presence of a school counsellor and expressed their desire to have her at the school more often. At another, the gym teacher was considered 'really nice and probably one of the most active living people I know. She is one of the people who will get up at 6 o'clock to go for a kilometer run.' *(FG3 – M)* Students also spoke often of how they could be role models in order to encourage their peers to engage in healthy behaviours:

> *I guess, by example, if you start to do something, you could be like, 'Oh do you want to go for a run?' and get someone else to do it, it becomes a domino effect, the more you are doing, the more someone else is doing, and other people will want to follow it. Same as healthy eating, if someone sees you eating something healthy that looks really good, they will be more likely to get it too. (FG1 – F)*

Students felt strongly that having positive relationships with teachers, staff and principals was important. They liked it when teachers and principals knew their names, had conversations with them and were generally interested in how the student was doing. As a reflection of this, students said they tried harder in class when they liked a teacher and felt that teacher respected them because they did not want to disappoint the teacher:

> *I have to say, we have the best teachers here. You can talk to anyone. Some teachers will stop me in the hallway and ask me how my day is going and stuff like that. We have a really supporting staff behind us. (FG3 – M)*

The positive relationships that students develop with teachers, principals and staff also seem to have a long-term impact, as several students discussed their relationships with teachers and staff at their previous schools and reflected on how they enjoyed those connections.

Barriers to Engaging in Healthy Behaviours

Students also identified barriers to making healthy choices. Specifically, students were very vocal about the cost and quality of food in their cafeteria. In most schools, the healthy option was not appealing or was more expensive, which deterred students from choosing the healthier option. Additionally, multiple lunch periods, waiting in long lines and not having enough time to eat resulted in students not eating at all, choosing unhealthy options from vending machines, or leaving the school campus for quick and inexpensive fast food. The lack of opportunities to be active at

school and the lack of variety in activity type were also considered barriers by the students*:*

> *I think if they had more activities for after school that would interest more people and just not a few, just [the] basketball team or whatever. I don't really have any ideas, like dodgeball or whatever, but that might interest a lot more people to actually join and go do more physical activity after school. (FG6 – F)*

Student Voice

A theme that emerged was the inability for students to have their voices heard by administrators and teachers or to have any influence in decisions and policies that directly impacted them. While there were a few students who had confidence in their ability as a group to influence change, the majority of students expressed feeling that they did not have any power when it came to making change in their schools. As one student stated:

> *They [the school] just push us away because they think we don't really know what we are talking about, but on subjects like that [cafeteria food, gym classes, tobacco on school grounds] we could actually have something against it, like it is true, but they just don't listen to us because of our age. If they did, I am sure the school would be way better. (FG5 – M)*

Another student expressed feeling the same: 'I guess we never really tried that hard, but there are certain things that we tried to fight for that it just doesn't work because we are kids. They don't look at us as responsible and that we know what we are doing.' *(FG5 – F)*

DISCUSSION

Our experiences listening to students speak to the missed opportunities that result when student voices are not heard. Students are clearly aware of youth health issues and have great ideas as to how schools can improve student health. Students not only described what school health meant to them, they also addressed some school/youth health issues. The richness of the data resulted in the emergence of key findings about what youth or their school community could do to help them be healthier.

Students overwhelmingly identified that food quality and price were barriers to choosing healthy options in schools. Other studies have also found that the availability of non-nutritious foods in the cafeteria and vending machines and poor food quality of the healthy food options leads to students choosing the less healthy option (Bauer, Yang & Austin 2004; Kubik, Lytle & Fulkerson 2005; Yoshida, Craypo & Samuels 2010). In 2006, PEI school boards adopted board-level school nutrition policies and have since been working to implement them in their schools. Thus, in many cases, schools have been changing their cafeteria practices, trying to encourage healthier choices. Research has also found that simple actions such as strategic placement of healthy foods in the cafeteria

can increase the sales of those foods (Just & Wansink 2009). Increased vigilance and action to address the above-mentioned barriers may help improve policies and programs for healthy eating in schools.

Issues raised by the students concerning barriers to physical activity, such as the lack of options for teams or competitiveness in joining teams due to school size, were consistent with past research (Bauer, Yang & Austin 2004; Kubik, Lytle & Fulkerson 2005). Of particular concern is the lack of participation in physical activity by females. In PEI, only 37 per cent of girls, compared to 52 per cent of boys, meet the national physical activity guidelines (Murnaghan 2011). Students in PEI identified that being self-conscious may influence whether or not they, especially girls, would participate in physical activity. Negative comments by others, especially boys, towards girls who were participating in physical activities and lack of self-esteem were identified as barriers for girls to be physically active (Vu et al. 2006). To address the lower participation rates for girls, more activities that girls are interested in, as well as creating school environments where girls feel comfortable, should be supported (Bauer, Yang & Austin 2004; Neumark-Sztainer, Martin & Story 2000).

Positive role models emerged as a facilitator to engaging in healthy behaviours. When discussing ways to encourage their peers to make healthier choices, students identified how adults and youth could act as role models. This behaviour could be either indirect, where a student would choose a healthy meal option after viewing a friend do the same, or direct, where a student would ask or encourage their friend to participate in physical activity (Bandura 2004). Previous research has also found that adult and youth role models have a positive influence on encouraging healthy behaviours (Kubik, Lytle & Fulkerson 2005; Vu et al. 2006).

Many students spoke positively of the relationships they had with teachers and administrators at their current and previous schools. This finding is consistent with the Wingspread Declaration on School Connections (2004) which showed that students who felt connected to their school were more likely to succeed. The association between school connectedness and various student health behaviours has been reported in studies on physical activity (Faulkner et al. 2009), anger and harassment (Eisenberg, Neumark-Sztainer & Perry 2003; Rice et al. 2008), and general health-risk behaviours (e.g. drug use, violence) (Bond et al. 2007; McNeely & Falci 2004; McNeely, Nonnemaker & Blum 2002; Rasmussen et al. 2005; Resnick et al. 1997). By fostering and encouraging positive relationships, the potential to enhance the overall health and wellbeing of youth is supported.

Although youth would like to participate, they are often not involved in conversations and decisions that directly impact them. Overwhelmingly, we heard that youth did not have confidence in their ability to have their voices heard. However, studies have shown that there have been many successes when youth voices

have been heard and youth have been actively engaged. For example, through participation in research and other activities that directly impact them, youth have experienced increased levels of self-esteem and increased confidence in themselves and their abilities (Cargo et al. 2002). Engaging youth has also been found to be related to improved academic achievement and reduction of risky behaviours such as delinquency and substance use (Altman et al. 1998; Lerner & Thompson 2002; Roth et al. 1998). Further work is needed to better understand the complexity of engaging youth, as well as to develop strategies to overcome these barriers.

Limitations

Some of the focus groups were larger than 6–8 participants as recommended by Morse and Richards (2002) and could have resulted in some students not feeling comfortable to voice their opinions. However, many of the schools in PEI are small and students generally move through the school system with the same peers and have known each other for many years. Also, the researchers who facilitated the focus groups found that, although some students spoke more than others, all of the students participated.

Future research with youth should involve larger samples of students from diverse school settings to ensure that the perspectives captured would reflect the wider youth population. The schools sampled, however, did represent rural and urban schools, high schools and consolidated schools. Even though the sample size was small, the focus groups conducted were both mixed and gender specific, and students came from diverse backgrounds.

Another limitation arose from the recruitment of the students themselves. Principals were asked to nominate students, and while they were encouraged to select a diverse sample of students that would best represent the school population, often students who were selected or who volunteered to participate in similar projects tended to be those who excelled academically and socially, and were already engaged in school activities. It is important to be cognisant that lessons learned from these students may not be completely reflective of the student population.

While focus groups are a well-recognised methodology for use with youth, there may be some youth who do not share openly in groups and therefore diverse methods of engaging youth may contribute to richer and more inclusive perspectives of youth. Multiple methodologies such as photovoice, journal writing, online blogs, etc. may increase the quality and variety of perspectives shared by the youth involved.

Implications

The findings from this preliminary study speak to the need to engage youth voices in policy- and decision-making. When policy- and decision-makers include the population most affected by the changes as an equal partner in the process, there is a much greater chance of success. The area of youth health could experience similar success in adoption and uptake of new strategies if youth

played a more consistent role in leading the way to improve their own health.

Locally, summaries of the focus group results were directly disseminated to all schools that participated, and results were also presented at several provincial meetings and forums and national meetings and forums with other provincial teams involved in the Youth Excel project. Because of the relatively small size of the province and existing relationships between youth health stakeholders, the research team has well-established relationships with all public schools in PEI. These strong relationships were found to play a major role in the successful implementation and overall uptake of the SHAPES-PEI project (Murnaghan et al. 2013). As a result, stakeholders including school administrators, teachers, parents and other members of the community contact the research team directly, or are connected through the provincial government's School Health Specialist, when seeking information related to youth health. These relationships facilitate the dissemination process and increase the ability to share lessons learned between and across researchers, practitioners, government and non-government representatives, and most importantly, schools. Schools are provided with examples of initiatives that similar schools within PEI, and also across Canada, have implemented. Schools that participate in the SHAPES-PEI project receive their individual profile results within 8–10 weeks of the survey date, which allows them to react quickly and implement changes. Supported by the quantitative results from SHAPES-PEI and the qualitative information gained from speaking with students, schools in PEI are better equipped to respond to issues of concern.

CONCLUSION

Although it is encouraging that we were able to gain a deeper understanding of the importance of youth voices, the work that remains to be done requires a commitment to action by researchers, policy-makers and practitioners across local, provincial and national levels to engage youth. Further research is also needed to explore youth stories and perspectives more thoroughly and to engage youth voices in school/youth health dialogues, especially across diverse youth population settings. Action steps can be taken to encourage healthy eating and increased physical activity. Our findings suggest that positive role models and connections students have at their school (with both peers and staff) continue to be important to a student's overall health. Attention needs to be paid to inclusive knowledge exchange practices that value and integrate youth perspectives and ideas as a basis for building health promotion action and intervention.

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