

A Formative Evaluation of the Feel the Power Feel Fit Girls Program (FTPFFGP): A Physical Activity Program for Female Adolescents

Évaluation formative de Feel the Power Feel Fit Girls, un programme d'activité physique à l'intention des adolescentes

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Abstract

A formative evaluation was conducted to determine successes, challenges, and improvement areas within Feel The Power Feel Fit Girls Program (FTPFFGP), a program designed to increase physical activity levels among female adolescents. Two cohorts were identified within this study of N=121 participants (n_1 =53, n_2 = 68). Key informant interviews, focus groups, and questionnaires were utilized. The results indicated that various promotion strategies were effective but need to be sustained over time; students enjoyed participating and would like additional activities to be provided; resource constraints in providing activities need to be addressed; participants liked the various incentives for participation; having external funding for the program and staff support were deemed essential to the success of the program.

Résumé

On a procédé à une évaluation formative pour déterminer les réussites, les défis et éléments à améliorer, de Feel The Power Feel Fit Girls (FTPFFG), un programme ayant pour but d'accroître la pratique d'activité physique chez les adolescentes. Un groupe de 121 adolescentes a été divisé en deux cohortes (n_1 =53, n_2 = 68). Les chercheurs ont ensuite interviewé des informatrices clés, mis sur pied des groupes de consultation et distribué des questionnaires. Les résultats ont démontré ce qui suit : il existe diverses stratégies de promotion efficaces, mais ces dernières doivent être maintenues au fil du temps; les étudiantes aiment participer et veulent qu'on leur propose d'autres activités; la pénurie de ressources risque de nuire aux activités et il faut trouver une solution; les participantes aiment les divers incitatifs qui les encouragent à participer; il faut absolument trouver des sources externes pour financer le programme et le personnel. Tous ces éléments sont nécessaires à la réussite du programme.

Introduction

Despite research demonstrating the importance of physical activity (PA) on health, many children and youth are still not active enough. Ninety-three percent of Canadian children and youth do not meet the Canadian Physical Activity Guidelines (Colley et al., 2011). While both male and female children are at risk, it has been shown that girls within each age cohort are less active than their male counterparts (Loucaides, Plotnikoff, & Bercovitz, 2007) and that PA levels among girls decrease with increasing age (Allison, Adlaf, Dwyer, Lysy, & Irving, 2007; Troiano et al., 2008). These findings suggest a need for PA intervention programs for young females (Camacho-Minano, LaVoi, & Barr-Anderson, 2011; Ransdell, Dinger, Huberty, & Miller, 2009). PA programs can help individuals maintain healthy weights. Shields (2005) found that 18% of Canadian children and youth aged 2 to 17 were classified as overweight while 8% were classified as obese. In the province of Ontario, Vogt and Tarasuk (2007) showed that the 19% and 8% classification of overweight and obese was similar to the Canadian data.

These trends have led public health practitioners to search for effective programs to increase PA levels. Middle school programs include Coordinated Approach to Child Health (CATCH) (Hoelscher et al., 2004) and Trial of Activity for Adolescent Girls (TAAG) (Stevens et al., 2005). The CATCH middle school program focuses on various aspects of the school environment such as the classroom curriculum, physical education, school food services, and students' families to promote both physical activity and healthy eating (CATCH Texas, 2012, February 27). The TAAG intervention focuses on components of the school and community environment such as the classroom, physical education, promotional and media activities, and community physical activity programs, for females in grades 6 to 8 (University of North Carolina at Chapel Hill, n.d.; Ward, Saunders, & Pate, 2007). Lifestyle Education for Activity Project (LEAP) (Children's Physical Activity Research Group, 2006) and New Moves (Ward et al., 2007) are examples of interventions for females in high schools. LEAP promotes physical activity via health education, physical education, school health services, and family and community involvement (Children's Physical Activity Research Group, 2006; Ward et al., 2007). New Moves is an alternative all-female physical education program to promote physical activity, healthy eating, and positive body image (Neumark-Sztainer, 2009; Ward et al., 2007). These cohort specific physical activity intervention programs are well known and often cited in demonstrating the effectiveness of facilitated education based or education related activities.

In Hamilton, Ontario, the Feel The Power Feel Fit Girls Program (FTPFFGP) was developed to increase PA levels among female adolescents. FTPFFGP is a female-only PA intervention program running in secondary schools outside of school hours. The activities, chosen by participants, were open to all females who attended the school and were often non-competitive to foster comfortable environments to try new activities. FTPFFGP was facilitated through the public health department (a Physical Activity Specialist and a Public Health Nurse (PHN)), volunteer teachers and female student Youth Advisors (YAs), in conjunction with the PHN assigned to the school. The term Youth Advisor was given to volunteer female students at the school who helped to plan and promote the FTPFFGP and launch event. These individuals assisted in sessions providing information on benefits and barriers to PA for adolescent females and ways to overcome them. Healthy Living Hamilton provided one-time seed money to pay for instructors and/or fitness equipment for the program and for launch items.

Development of Intervention

FTPFFGP was developed in response to a literature search demonstrating low PA levels and an examination of barriers to PA and self-efficacy among adolescent females. A logic model of the proposed FTPFFGP, which visually depicts the program, was developed (see Figure 1). FTPFFGP, like some other programs (e.g., LEAP, CATCH, and New Moves) was based on social cognitive theory. Congruent with social cognitive theory (Bandura, 1997), FTPFFGP involved personal (e.g., skills, abilities, mastery experiences, enjoyment of physical activity, and self-efficacy), environmental (e.g., positive feedback and more opportunities for physical activity), and behavioural factors (e.g., develop and use strategies to overcome barriers to physical activity, and participation in diverse physical activity initiatives in the school and community). The literature review showed few programs target female adolescents (Pate et al., 2005). Of the programs that do, some are not inclusive to all females. For example, New Moves targeted overweight females and females at risk for being overweight due to low physical activity levels (Neumark-Sztainer, Story, Hannan, & Rex, 2003). A comprehensive logic model was created to map out the intervention and to create evaluation tools. The purpose of this article is to describe the development and formative evaluation of this program.

Methods

Study Design and Sample

The evaluation of FTPFFGP was formative and included the development of a logic model (Figure 1) as part of the evaluation process. A formative evaluation can provide information guiding program improvement and can help shape an established program to perform better (Rossi, Lipsey, & Freeman, 2004). The formative evaluation allowed the researchers to determine how the program was implemented as well as to identify areas of improvement, successes, and challenges (McDavid & Hawthorn, 2006; Stufflebeam & Shinkfield, 2007). The process evaluation component of the formative evaluation was conducted one year after program implementation to allow for identified improvements to be made. The formative evaluation establishes the foundation for a subsequent summative evaluation that focuses on assessing the overall applicability of the program (Stufflebeam & Shinkfield, 2007).

Two secondary schools in Southwestern Ontario (referred to as schools A and B) were involved in the evaluation (one each from the public and separate boards). Both school boards approved the study. The schools were randomly chosen from the six interested schools that had not had FTPFFGP in their school and had school and PHN support to implement FTPFFGP during the 2006/2007 school year. Participants were recruited for the study from volunteer teachers, YAs, FTPFFGP participants, and non-participants who filled out consent forms. All female students in the school had the opportunity to sit on the committee and participate in the activities.

Qualitative data were collected through key informant interviews and focus groups. In School A, one principal was interviewed, and one focus group of eight school staff and a Public Health Nurse (PHN), one focus group of eight YAs, and one focus group of eight program participants were conducted. In School B, one principal was interviewed, and one focus group of four school staff, one focus group of four YAs, and one focus group of six program participants were conducted. One PHN interview was conducted separately due to the PHN not being able to make the school staff focus group date. For focus groups with the students, equal representation from each school grade was attempted. Bochsler, Dwyer, Montelpare

Strategies	Environmental support	Promotion	Education / skill development
Program Activities	 PHS staff and TAs set up a school YA committee to examine PA among female students PHS staff, YAs, and TAs facilitate the creation of available and accessible PA opportunities in the school environment for female teens Healthy Living Hamilton provides seed funds and healthy snacks for participants in the launch event and sessions/events PHS staff consult with school staff and YAs about creating supportive environments for PA in school PHS staff provide information about how different cultural/religious backgrounds relate to levels of ability and comfort for PA, to YAs and participants 	 PHS staff provide promotional information about the program to each female student PHS staff promote the program to school Public Health Nurse, school boards, and school PHS staff, TAs, and YAs promote launch and ongoing PA initiatives via announcements, flyers, assemblies, personal communication, and presentations to community partners 	 PHS staff provide evidence- based research information on PA to school boards, principals, TAs, YAs, and female students PHS staff provide resource packages (e.g., recommended PA and nutrition guidelines) to YAs YAs obtain support from PHS, TAs, and school administration to plan and initiate PA opportunities PHS staff provide funds and female PA instructors/speakers to facilitate launch PHS staff, TAs, and YAs plan a school-wide PA launch and ongoing PA programs PHS staff meet with TAs, administration, YAs, and female students to provide support by brokering community contacts with the school

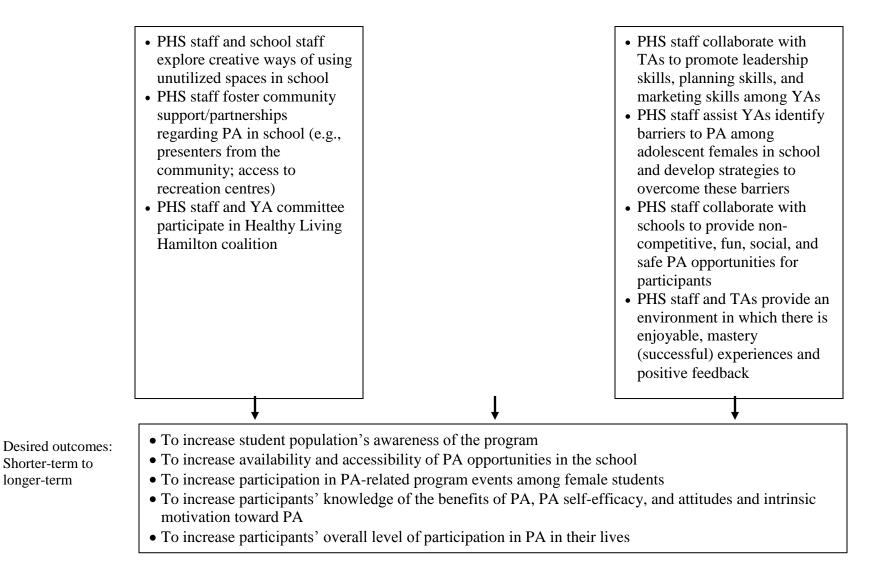


Figure 1. FTPFFGP logic model. Note: Physical activity = PA; Public Health Services = PHS; Teacher Advisor = TA; Youth Advisor = YA

Measures

Focus group interview guides for staff, YAs, and participants were developed to assess barriers to PA as well as views on successes, challenges, and areas of improvement for promotion of FTPFFGP, YA sessions, activities, incentives, and perceived support. An interview guide for principals was used to gather information about school and PA culture, opportunities and support for PA, and FTPFFGP sustainability. A non-participant questionnaire was developed to gather information about whether and how they had learned about FTPFFGP, the importance of physical activity, and what would make it easier for them to participate in FTPFFGP. Program attendance and YA committee minutes were recorded and examined as potential moderating information in subsequent analysis. As sample of questions and probes used for focus group, key informants and the non-participant interview are shown in Table 1.

Table 1

Sample questions from focus groups, key informant interviews and non-participant questionnaire

 Data Source
 Prompts Used

Data Source	Sample Question	Prompts Used
Focus Groups	a) One of the things that impact physical activity is the culture of the school. Can you describe the physical activity culture of your school?	Support for physical activity, intramurals, sports teams, sports clubs, open gym time, role models
	b) I would like to get your ideas on lessons learned from FTPFFGP. Can you share things that worked well and why? Now I would like to ask you the challenges you faced. If you were able to overcome some of these challenges, how did you do it?	Staff support, start up money, incentives, gym time, time
Key Informants	a) One of the goals of the FTPFFGP is to make physical activity more available and accessible in the school for females. Could you comment on if/how this has happened in your school?	Intramurals, sports teams, sports clubs, open gym time, role models, administration support, staff support, parents, available equipment, new opportunities
	b) One of the things we want for FTPFFGP is sustainability. Some things make this easier or difficult. Can you comment on how we can make it easier for your schools to stay involved with FTPFFGP? If there are any challenges, what are they? What can we do to overcome them?	Money, teacher advisors, support from public health
Non-	a) How did you learn about the FTPFFGP?	Not aware, posters,
Participant	(Check all that apply)	announcements, in-class

Interviews		presentation, teachers, friends, other
	b) What would make it easier for you to participate in the FTPFFGP? (Check all that apply)	Being more aware of FTPFFGP, more convenient time, having more time, friends participating, right attire for activities, feel more confident, liking the activities, nothing would make me interested, other

Data Analysis

Qualitative data were recorded and later transcribed verbatim. Transcripts were read in order to create a master list of themes and sub-themes that emerged from the data. The transcripts were then revisited and codes were applied to segments of the text based on the master list. After coding, the compiled data were analysed using Ethnograph (version 5.08, Qualis Research Associates, Salt Lake City, UT, 2001), qualitative data analysis software. A constant comparison approach was used to develop themes, which entailed coding comments by continually referring to previously coded segments of text for comparison (Morse & Richards, 2002). Ethnograph facilitated the storage and retrieval of this coded text to show comments and illustrative quotations for themes across the interviews and focus groups. Descriptive statistics were computed for quantitative data derived from the non-participant questionnaire, to provide additional context.

Results

Four main areas were addressed in the focus group and key informant interviews across all sample groups. The four areas were based on the culture of the school and addressed issues related to the importance of role models, the opportunities for physical activity, barriers or challenges to program success, and suggestions for improvement.

School Culture

Demographics. School A was very multicultural with 18% of the 1,020 students enrolled in English as a second language courses. More than 30 languages were spoken in the school and more than 50% of students spoke a language other than English at home. This diversity in culture had implications for the types of PA that female students participate in. Over 95% of students walked or took public transit to school making it easier for them to participate in PA opportunities outside of school hours. School B was less diverse with 1,212 students, many of which were involved in the popular music program. Roughly 55% of students relied on school buses to get to school, which made it difficult to participate in PA before or after school.

Role models. It was evident from the comments of principals, teachers, and students at both schools, that the teachers were perceived to be good role models for demonstrating the value of involvement in regular physical activity. Principals indicated that several teachers used the school fitness centre. A YA stated, "… it might not be that [school staff] are talking about being physically active, but they're already active."

School PA opportunities and equity. Both principals and teachers stated that many PA opportunities are available to students at their schools. They mentioned having great facilities, including a weight room, sports fields, lunch-time intramural programs, and open gym time in the evenings. School A provides a grade 9 showcase to inform new students about available co-curricular activities.

There were equity issues surrounding these opportunities. School A YAs reported different opportunities for female athletes (those on school sports teams and intramurals) versus non-athletes in the school. School A participants felt that there were many sports teams but that you had to be "really, really good to be on a team", so most students were excluded. Similarly, a School B participant said, "It's competitive. If you're not a good athlete ..., you feel self-conscious; you're not going [to try] out because everyone else is a little better than you." Program participants stated that often the same athletes are on various teams, which further limited participation. A participant commented, "The problem is that we put our focus on being involved in sports instead of just being active because not all girls like playing basketball and soccer." School A YAs indicated that they would like to see more alternative PA opportunities as opposed to sports teams.

School B YAs felt that there were equal opportunities for male and female athletes on sports teams, but not for non-competitive PA opportunities. However, School A and B participants felt that there were more opportunities for male athletes, such as a football team for males but not for females. School B participants also felt that there was a lack of coaches for females.

Intimidation by male classmates seemed to be a factor in low female participation. A School B participant said it is intimidating to be on a co-ed team. A YA at School B stated that it is awkward for females to use the weight room since males predominantly use it. School B participants commented that mostly males play the "very competitive" intramural soccer. School A participants felt that males at their school were "aggressive," "showed off," felt that they were "strong and cool," and were more fit than females.

Barriers to PA among female youth. Several cultural barriers were mentioned for School A. School A teachers noted "cultural restrictions" such as students not being allowed to be physically active in front of males. Also, some female students were not allowed to stay after school and participate in the program. Some were allowed to participate with special permission after submitting a form to their parents to inform them that no males would be present. A School A YA stated, "My parents are Muslim, so they find it weird for girls doing active things … They are not comfortable and happy with it."

Transportation was seen as an issue for School B since many students used the school bus. A participant said that, "A lot of us have just one bus and that's the only way to get home." Involvement in the music program at this school was also mentioned. The PHN felt that students might not see FTPFFGP as being as important as the band since "everyone wants to be in the band" and the band requires "one hundred percent commitment or you are out".

Figure 2 shows that School A non-participants reported being more likely to participate in FTPFFGP if they liked the activities, if FTPFFGP was offered at a more convenient time, and if their friends participated. For School B non-participants, the main factors were having more time, friends participating, liking the activities, and offering FTPFFGP at a more convenient time. Students who did not participate in FTPFFGP still considered PA important. Eighty-one percent of them (of 28) in School A and 86% of them (of 52) in School B felt that PA was somewhat or very important.

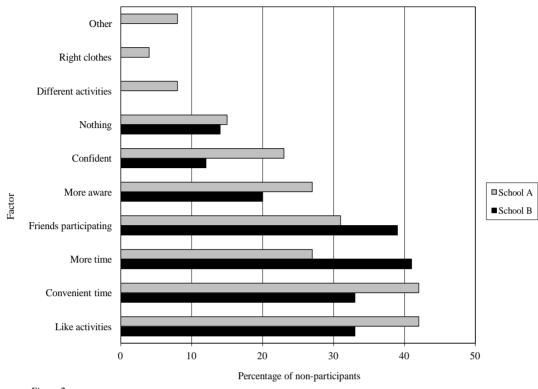


Figure 2.

Table 2

How to encourage non-participants to participate in FTPFFGP

YA Planning Committee Meetings, Launch, and Program

School A YAs met for five 40-minute sessions during lunch and School B YAs met for seven one-hour after-school sessions to develop their FTPFFGP and launch. At School A, 46 female students signed up for the launch and 41 students participated. At School B, 76 students signed up and 65 students participated (see Table 2).

Grade	School A	School E
09	03	19
10	14	25
11	11	10
12	08	06
>12	0	01
Unknown	5	04
Total	41	65

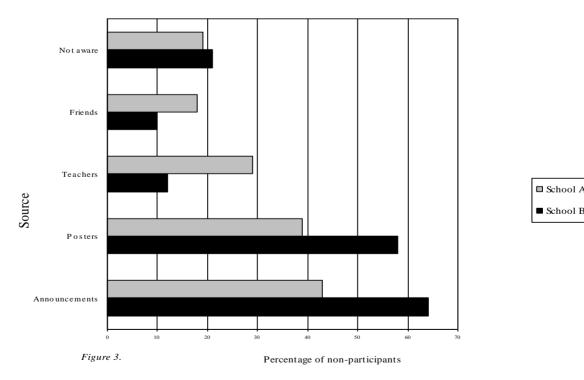
Number of Launch Participants by Grade

Participants' Views on Successes and Challenges of FTPFFGP

The following demonstrate both successes and challenges with regard to promoting the FTPFFG program.

Successes. Teachers at both schools thought that they successfully promoted FTPFFGP to female students. School A teachers felt that those participants who frequently came out heard about FTPFFGP from a teacher. School A YAs and participants also considered word of mouth from friends to be effective. The PHN stated, "That personal invitation makes a huge difference." FTPFFGP T-shirts helped with promotion. A School A teacher stated, "Those shirts were a good thing. I wore it the days we had the sessions. The kids say 'where is it?' It's a reminder to them, so I think those were good advertising things." YAs at both schools felt that the information booth in the cafeteria to advertise the launches was effective. School A teachers felt that many females signed up there. Announcements, posters, pamphlets, and student newspapers were also used to promote FTPFFGP in the schools.

Challenges. While both schools stated great promotion of their launches, promoting the ongoing FTPFFGP was challenging. School B teachers commented that the extensive promotion for the launch could not be sustained weekly. However, their PHN said, "Every time I went to the school, I looked at the announcement board. There was never anything about the program there." School A had challenges due to cultural conflicts. Demonstrations of PA were not done since some students could not be physically active in front of male spectators. Most non-participants heard about FTPFFGP from announcements (see Figure 3). However, announcements in both schools were sometimes ineffective due to classroom disruption.



How non-participants heard about FTPFFGP

Also, School B students said that announcements were made the day the activity was scheduled, giving them insufficient time to make arrangements (especially those taking the school bus).

While T-shirts were seen as effective for promoting the program, there was some confusion about having the FTPFFGP logo, as opposed to the school's own program name (committee members could create their own), on the T-shirts. A School A teacher stated, "We're calling our group 'Girls Get Active' and then we have the 'Feel The Power Feel Fit Girls'. So which is it?"

As with the promotion of the FTPFFG program, the researchers identified that the participants experienced both successes and challenges as a result of participating in the program sessions as noted below.

Successes. School A YAs commented that the information "made us want to be healthy and participate in PA more." School A teachers said that the information was not overwhelming: "It did not feel like another class," and the girls were not "preached to." School A participants and teachers felt that the sessions helped to develop teamwork. They stated that the group worked well together in gathering ideas from their peers and that the girls were "extremely open." The teachers felt that public health staff provided strong support and direction. A teacher said, "I really like how you asked the [YAs] what they want to do so they feel like they own the club." School A YAs commented that public health staff's sharing of examples from other schools helped them plan activities.

Challenges. In contrast, School B teachers felt that sessions were like "another class" and too long. They felt that there was too much talking and not enough planning. School B YAs' main concern was not the length or quality of information presented, but rather a perceived lack of support from teachers such as not providing supplies (e.g., materials for posters) to advertise the launch and events. They felt that the teachers "put all the pressure, all the work on us." The YAs stated that it would have been helpful if they had been provided more guidance and encouragement from the teachers. School A did not provide any challenges in relation to the sessions.

Activities. Activities were provided in both schools after the launch. Hip-hop, ballroom dance, and aero-kickboxing were provided at lunch and after school at School A (9-15 participants per session). Hip hop, yoga, weight training, and water aerobics were provided after school at School B (2 to 6 participants per session). Some successes and challenges regarding specific FTPFFGP activities were discussed.

Successes. Teachers in both schools felt that hip-hop was the most popular activity. School A YAs and School B participants concurred. School B teachers also stated that the students experienced success in the weight room and hoped that the positive experience would encourage them to use the facility at other times. Participants in both schools felt comfortable doing activities with all females. School A participants said they liked that the activities were not competitive and that males were not watching them. Participants in both schools liked choosing their activities and enjoyed trying a novel one. School A teachers felt that providing the same activity a few times allowed the students to "develop some mastery of the activity". School A and B participants reported that the instructors were skilled and provided positive feedback.

Teachers and PHNs in both schools said that they observed students smiling and having fun doing the activities. The School A principal felt that the program gave females an opportunity to "broaden their social circle." For example, the female volleyball team participated in the launch in School A. Students said that doing the activities with their friends "made it more fun" and they liked meeting new people.

Challenges. Participants attributed low attendance after the launch to too many sports, other activities going on in the school, students being bussed, and some females preferring co-ed opportunities. The School B YAs said that there was not enough variety in the activities offered. They suggested specific activities but these were not offered. The PHN said, "The teachers intervened as far as what activities they were going to do," sometimes because of the cost, although money had been provided for this. School A had problems with a small room and poor acoustics.

School B teachers were frustrated that the instructors outside of school were not available immediately at the end of the school day when FTPFFGP was scheduled. They felt that public health staff, rather than school staff should coordinate the scheduling of instructors. Participants in School A reported that doing activities during lunchtime was difficult since it did not allow time to eat and they did not like getting sweaty when there was not enough time to shower. School B participants mentioned that FTPFFGP and the music program were offered during the same time.

Incentives. A variety of incentive items were provided to those involved in the program. YAs and teachers received T-shirts adorned with FTPFFGP logo, lanyards, and health education packages. Healthy snacks were provided at each session. Program participants received goodie bags at the launch as well as a light dinner and chances to win prizes (PA equipment, gift certificates, etc.). Some successes and challenges regarding incentives were reported.

Successes. Teachers in both schools felt that being able to participate in PA with other females was an incentive for the students. School A participants liked the healthy snacks that were available at each session and thought that it was important to provide these snacks. They also liked the "freebies" distributed during the sessions as well as at the launch. School A teachers and School B YAs liked one such freebie, the T-shirt that was provided to all FTPFFGP YAs.

Challenges. While some YAs liked the T-shirts, others were not fond of them stating, "I'd wear it to promote it and help out, but I wouldn't wear it [outside of FTPFFGP]." School B teachers felt that food should not be provided at the sessions, since it, "kept things long", but also because they thought it was the main reason for students coming. The PHN said, "I really feel that if a person is really interested in it that, they don't really need incentives ... If you run out of incentives, they quit because they're not getting anything out of it. What you want them to see is that they're getting fitter and healthier because of the program. That should be the incentive."

The researchers found that support or lack thereof was considered a fundamental determinant to the success of the FTPFFG program as noted below.

Successes. There were six female teachers in School A involved in the program, which provided a sense of support among them. The principal of School A commented, "We wouldn't do these initiatives if we didn't have Public Health lighting the flame, encouraging, building networks, and making connections between people with expertise and our school." The School A principal was very supportive of FTPFFGP. He said, "Any effort to improve the health and well-being of female teachers and students is a good thing." The School A principal stated that teachers embraced the program, and the School B principal noted that there were several enthusiastic teachers involved.

School A YAs reported greater support from teachers than School B YAs did. One School A YA stated, "I like how there were so many teachers and the teachers were really getting excited too so they made you want to be excited." Teachers at School A tried hard to make the program inclusive for all girls, but also tried to "encourage those kids that tend not to participate." For girls who may not be allowed to participate after school for cultural reasons, teachers wrote a letter to parents explaining that the program was girls-only and supervised. The School A YAs also mentioned that they appreciated being "backed up" by teachers when they were encouraging their peers to come out to the activities. There was less support in School B as noted by the response of the YA from School B who stated that they felt "pressured" by the teachers, and another's comment that it was "kind of bad that they weren't there for us".

Funding for FTPFFGP was deemed crucial. Besides providing incentive items, money was needed to pay instructors to lead activities that the students enjoyed, such as hip-hop, an activity that teachers did not feel comfortable teaching. School A YAs also commented that they were able to bring in outside instructors because of the funding. This ability to provide free programming was seen as being important.

Challenges. The School B PHN perceived that the school was not on board with the program: "I think that administration wanted it because everyone else was doing it, but I don't think that they were 100% behind it. None of them ever came by to see how they were doing." The PHN said, "The girls weren't getting the support they needed or the independence they needed to make it their group, not the teachers' group" and, "The teachers took over the reins and that ruined the whole thing." Similarly, the YAs "felt pressured by teachers" stating, "Teachers weren't there for us."

The PHNs and staff acknowledged that the program was dependent on current funding and emphasized that future funding is needed to sustain the program. A teacher said, "Without that money, I'm not sure who we would be able to bring in those things that kids really like to do."

Discussion

Formative evaluations provide information guiding program improvement and enhancing program performance (Rossi et al., 2004). A formative evaluation was conducted with the FTPFFGP, which identified successes, challenges, and areas of improvement. The results of this study validated findings from previous research. Salmon et al. (2005) stated the necessity of creating a program that is practical and feasible in delivery and cost. Both schools deemed funding essential to the provision of FTPFFGP. Salmon et al. (2005) also stated the necessity of support from administration and teachers. This was evident in School A where students felt support from teachers involved in the program, unlike in School B where a lack of support was felt from staff in the development and implementation of FTPFFGP. This school also received lower attendance numbers for activities. Sallis, Zakarian, Hovell, and Hofstetter (1996) stated that girls outnumber boys in non-competitive activities such as dance and aerobics. This is apparent by the types of activities chosen by YAs. Previous studies show that all-girls PA classes, guest PA instructors, field trips, integration of nutritional information, and other incentives were found to be strengths of PA interventions aimed at adolescent females (Neumark-Sztainer et al., 2003). The majority of focus group participants stated that they enjoyed the incentive items and felt that they were beneficial to FTPFFGP. Several barriers were identified during the focus groups. Females have consistently been shown to have higher levels

of perceived barriers than males potentially affecting their decision to participate in PA (Allison, Dwyer, & Makin, 1999; Dwyer, Allison, & Makin, 1998; Robbins, Sikorskii, Hamel, Wu, & Wilbur, 2009).

Limitations of the study included the involvement of only two schools in the study, difficulty in obtaining all participants in the focus group due to reliance on consent forms being returned and participants showing up (which affected the size of some groups), and a small sample of non-participants. However, by using qualitative methods, rich data were derived from the participants.

The results suggest various recommendations to improve FTPFFGP. Additional strategies to promote FTPFFGP should be considered, such as regularly reminding teachers to promote FTPFFGP in their classrooms, YAs visiting classrooms to promote FTPFFGP, demonstrating some activities while being sensitive to cultural issues, inviting a guest speaker for an assembly, and having an open-house display for invited students and parents. Also, music could be added in the background of repeated announcements during the day to catch students' attention. YAs could wear T-shirts with their own program name to create ownership.

It is recommended that teachers and students discuss strategies to plan FTPFFGP sessions more efficiently and discuss the type of support that students require from teachers to promote, develop, and implement the program. Whether greater nutrition information should be incorporated in FTPFFGP could be explored. Popular activities such as hip-hop should be continued and offered more frequently so students can increase their confidence. More variety in activities should be added to accommodate students' diverse interests. This could include indoor and outdoor activities at school and elsewhere in the community (e.g., recreation centre). Activities could be offered during lunch and after school to accommodate students' preferences and schedules, including bussing. Other incentives could be used such as providing incentives to get students to the events, membership cards, providing progress checks for participants, and giving certificates or providing prizes for frequent attendance. Incorporating these changes could help to encourage non-participants to become involved in FTPFFGP as they address many of their stated reasons for not participating.

Schools interested in implementing FTPFFGP need to demonstrate that administration and teachers are supportive of the program and committed to dedicating resources to it. They need to ensure that FTPFFGP is student-driven rather than teacher-driven. These factors may determine whether other schools looking to implement the FTPFFGP respond similarly to School A or School B. Potential funding sources to sponsor FTPFFGP and cost sharing could be explored. Also, older students leading activities that they have some competence in would keep program costs down.

As few programs target female adolescents (Pate et al., 2005), FTPFFGP helps to address this gap. Stone, McKenzie, Welk, and Booth (1998) identified the need for more studies on the effectiveness of interventions to prevent a decline of physical activity among female adolescents. This evaluation adds to the evaluation literature in this area. The findings of this evaluation inform future development of programs like FTPFFGP and can help to shape the thinking of decision makers at the Board of Education level with regard to establishing policies that will enhance the environment to facilitate physical activity for designated cohorts, such as young women.

References

- Allison, K.R., Dwyer, J.J.M., & Makin, S. (1999). Perceived barriers to physical activity among high school students. *Preventive Medicine*, 28(6), 608-615.
- Allison, K.R., Adlaf, E.M., Dwyer, J.J.M., Lysy, D.C., & Irving, H.M. (2007). The decline in physical activity among adolescent students. *Canadian Journal of Public Health*, 98(2), 97-100.
- Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: W.H. Freeman and Company.
- Camacho-Minano, M.J., LaVoi, N.M., & Barr-Anderson, D.J. (2011). Interventions to promote physical activity among young and adolescent girls: A systematic review. *Health Education Research*, 26(6), 1025-1049.
- CATCH Texas. (2012, February 27). CATCH middle school program. Retrieved from https://sph.uth.tmc.edu/catch/catch_middleschool.htm
- Children's Physical Activity Research Group. (2006). Lifestyle Education for Activity Project (LEAP). Retrieved from *http://www.sph.sc.edu/usc_cparg/leap/index.html*
- Colley, R.C., Garriguet, D., Janssen, I., Craig, C.L., Clarke, J., & Tremblay, M.S. (2011). Physical activity of Canadian children and youth: Accelerometer results from the 2007 to 2009 Canadian Health Measures Survey (Statistics Canada, Catalogue No. 82-003-XPE). *Health Reports*, 22(1), 1-9.
- Dwyer, J.J.M, Allison, K.R., & Makin, S. (1998). Internal structure of a measure of self-efficacy in physical activity among high school students. *Social Science Medicine*, 46(9), 1175-1182.
- Hoelscher, D.M., Feldman, H.A., Johnson, C.C., Lytle, L.A., Osganian, S.K., Parcel, G.S., Kelder, S.H., Stone, E.J., & Nader, P.R. (2004). School-based health education programs can be maintained over time: Results from the CATCH institutionalization study. *Preventive Medicine*, 38(5), 594-606.
- Loucaides, C.A, Plotnikoff, R.C., & Bercovitz, K. (2007). Differences in the correlates of physical activity between urban and rural Canadian youth. *Journal of School Health*, 77(4), 164-170.
- McDavid, J.C., & Hawthorn, L.R.L. (2006). *Program evaluation & performance measurement: An introduction to practice*. Thousand Oaks, CA: Sage Publications.
- Morse, J.M., & Richards, L. (2002). *Readme first for a user's guide to qualitative methods*. Thousand Oaks, CA: Sage Publications.
- Neumark-Sztainer, D. (2009). New Moves: An alternative physical education program just for girls. Retrieved from *http://www.newmovesonline.com/index.html*
- Neumark-Sztainer, D., Story, M., Hannan, P.J., & Rex, J. (2003). New Moves: A school-based obesity prevention program for adolescent girls. *Preventive Medicine*, *37*(1), 41-51.
- Pate, R.R., Ward, D.S., Saunders, R.P., Felton, G., Dishman, R.K., & Dowda, M. (2005). Promotion of physical activity among high-school girls: A randomized controlled trial. *American Journal of Public Health*, 95(9), 1582-1587.
- Ransdell, L., Dinger, M.K., Huberty, J., & Miller, K. (2009). *Developing effective physical activity programs*. Champaign, IL: Human Kinetics.
- Robbins, L.B., Sikorskii, A., Hamel, L.M., Wu, T., & Wilbur, J. (2009). Gender comparisons of perceived benefits of and barriers to physical activity in middle school youth. *Research in Nursing and Health*, *32*(2), 163-176.

- Rossi, P.H., Lipsey, M.W., & Freeman, H.E. (2004). *Evaluation: A systematic approach*. Thousand Oaks, CA: Sage Publications.
- Sallis, J.F., Zakarian, J.M., Hovell, M.F., & Hofstetter, C.R. (1996). Ethnic, socioeconomic, and sex differences in physical activity among adolescents. *Journal of Clinical Epidemiology*, 49(2), 125-134.
- Salmon, J., Ball, K, Crawford, D., Booth, M., Telford, A., Hume, C., Jolley, D., & Worsley, A. (2005). Reducing sedentary behaviour and increasing physical activity among 10-yearold children: Overview and process evaluation of the "Switch Play" intervention. *Health Promotion International*, 20(1), 7-17.
- Shields, M. (2005). Nutrition: Findings from the Canadian Community Health Survey. Issue No. 1. Measured obesity: Overweight Canadian children and adolescents (Statistics Canada, Catalogue No. 82-620-NWE2005001). Retrieved from http://www.statcan.gc.ca/pub/82-620-m/2005001/pdf/4193660-eng.pdf
- Stevens, J., Murray, D.M., Catellier, D.J., Hannan, P.J., Lytle, L.A., Elder, J.P., Young, D.R., Simons-Morton, D.G., & Webber, L.S. (2005). Design of the Trial of Activity in Adolescent Girls (TAAG). *Contemporary Clinical Trials*, 26(2), 223-233.
- Stone, E.J., McKenzie, T.L., Welk, G.J., & Booth, M.L. (1998). Effects of physical activity interventions in youth. Review and synthesis. *American Journal of Preventive Medicine*, 15(4), 298-315.
- Stufflebeam, D.L., & Shinkfield, A.J. (2007). *Evaluation theory, models, and applications*. San Francisco, CA: John Wiley & Sons, Inc.
- Troiano, R.P., Berrigan, D., Dodd, K.W., Masse, L.C., Tilbert, T., & McDowell, M. (2008). Physical activity in the United States measured by accelerometer. *Medicine and Science in Sports and Exercise*, 40(1), 181-188.
- University of North Carolina at Chapel Hill. (n.d.). The TAAG study. Retrieved from *http://www.cscc.unc.edu/taag/descpub.php*
- Vogt, J., & Tarasuk, V. (2007). Analysis of Ontario sample in cycle 2.2 of the Canadian Community Health Survey (2004). Retrieved from http://www.phredredsp.on.ca/Docs/Reports/CCHSReport/CCHS%20Cycle%202%202%20Ontario%20Nut rition%20Data%20Analysis%20Project_Full%20Report.pdf
- Ward, D.S., Saunders, R.P., & Pate, R.R. (2007). *Physical activity interventions in children and adolescents*. Champaign, IL: Human Kinetics.