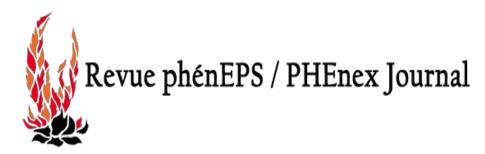
Vol 10 no 2



Parents' Perceptions of a University-based Children's Physical Activity Program

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Abstract

Physical inactivity has been called a crisis facing Canadian children and youth. Universities play a role in addressing this crisis; training future health professionals and educators and offering publicly accessible programming, such as physical activity programming. This study evaluates a children's university-based physical activity program. A mixed-methods design was employed, capturing parents' experience within the program through an online survey and one-on-one interviews. Participants felt that the program offered a safe place for their children to learn about their abilities while developing social and physical skills. Parents spoke to the importance of offering a quality program in an inclusive environment which could benefit both the university and community. Universities that have appropriate facilities are in a position to provide physical activity programming for their communities, offering potential learning opportunities for students and impacting health and physical activity levels of the community.

Keywords: physical literacy; physical education; health promotion; university-based programming; experiential learning

Résumé

Les enfants et les jeunes Canadiens vivent ce qu'il est convenu d'appeler une crise de l'inactivité physique. Les universités jouent un rôle dans la résolution de cette crise par leur engagement dans la formation de professionnels de la santé, d'éducateurs et en offrant des programmes d'activité physique ouverts aux enfants. Cette étude a pour but d'évaluer un tel programme offert à des enfants dans des installations universitaires. Une approche mixte de recherche a permis de décrire l'expérience de parents dans ce programme: un questionnaire en ligne et une entrevue individuelle. Les participants estiment que le programme offre un endroit sécuritaire à leurs enfants pour développer leurs habiletés tant physiques que sociales. Les parents mentionnent l'importance d'offrir un programme de qualité dans un environnement inclusif au bénéfice de la communauté et de l'université. Les universités disposant d'installations appropriées peuvent offrir des programmes d'activité physique à leur communauté, ouvrant ainsi la porte à des occasions d'apprentissage pour les élèves, ce qui peut influencer la santé et le niveau d'activité physique de cette communauté.

Mots clés: littératie physique; éducation physique; promotion de la santé; programmation en milieu universitaire; apprentissage expérientiel

Introduction

Physical activity is an integral part of healthy child development. It offers benefits for children's physical growth and maturation, social, personal, and emotional development, and increases the likelihood they will remain active into adulthood (Diamond & Lee, 2011; Malina, Bouchard & Bar-Or, 2004; Sallis, Prochaska, & Taylor, 2000; Timmons et al., 2012; Tremblay et al., 2012; Trost, Owen, Bauman, Sallis, & Brown, 2002). By maintaining activity levels into adulthood, children and youth can reduce their chances of developing chronic diseases and mental illness while improving self-image and self-confidence (Blondell, Hammersley-Mather, & Veerman, 2014; Fox, 2000; Reiner, Niermann, Jekauc, & Woll, 2013; Warburton, Nicol, & Bredin, 2006; Zschucke, Gaudlitz, & Ströhle, 2013). Regardless of these potential benefits, physical inactivity has been identified as a crisis among Canadian children and youth populations (ParticipACTION, 2016). It is recommended that children under five years old should participate in three hours of activity daily and those aged five to 17 years should participate in 60-minutes of moderate to vigorous activity daily (Tremblay et al., 2011; Tremblay et al., 2012). A recent evaluation of physical activity among Canadian children showed that although 84% of three- to four-year-old children were sufficiently active, this number sharply declined to 14% among fiveyear-old children (Colley et al., 2013). As such, it is important to encourage children to be active and introduce them to a wide variety of physical activities where they can develop an enjoyment and a positive attitude toward being physically active (Burdette & Whitaker, 2005).

Research has clearly shown that by making physical activity programming available, children may increase their physical activity levels (Sallis, Prochaska, Taylor, 2000). Although offering programming is related to increased activity, more research is needed to determine what characteristics allow for successful program delivery. It has been proposed that using physical literacy tenets to develop physical activity programs for children and youth may increase the likelihood children will maintain an active lifestyle (De Rossi, Matthews, MacLean, & Smith, 2012). Physical literacy is a relatively new area of research that focuses not only on the development of physical skills and ability but works to foster positive self-esteem and self-confidence through self-determined play and activity (De Rossi, Matthews, MacLean, & Smith, 2012). As such, physical literacy can be defined as "the motivation, confidence, physical competence, knowledge and understanding to maintain physical activity throughout the life course" (Canadian Sport for Life, 2015, para 1).

Universities can play a crucial role in physical activity promotion, through research and education, by offering valuable physical activity opportunities for children along with service learning opportunities for university students. By creating community-based physical activity programming, universities not only improve relationships with members and organizations in the community, but it helps create opportunities for teaching and learning about health and wellbeing where all benefit (Bruning, McGrew, & Cooper, 2006; Hart & Northmore, 2010).

Considering the importance of university-based physical activity programming to the community, it is essential to ensure these programs are high quality. Although some universities may not have space or equipment or may lack an academic program to support a physical activity program (e.g., physical education or kinesiology), those that have the capacity are in a position to provide a service for their local community and to promote healthy lifelong physical activity practices. Therefore, the purpose of this study was to: (a) evaluate a university-based physical activity program aimed at addressing a local need for programming for pre-elementary age children (i.e., 0-6 years), (b) identify parents' perceptions of barriers/challenges, opportunities, and

areas of improvement for the program, and (c) create recommendations to inform other university-based physical activity programs.

Methods

A mixed-methods design was applied, using both quantitative and qualitative methodology. This methodology provides a greater understanding of parent experience and a wider breadth of results (Burke, Johnson, Onwuegbuzie, & Turner, 2007). Methods were applied sequentially in two phases: (a) an online survey designed to capture parents' thoughts and feedback on the program, and (b) qualitative interviews to explore parents' experiences with the program. Cross-method triangulation of results was possible with this methodology; ensuring findings are valid and credible. Ethical approval was obtained from the host institution's ethics committee, and informed consent was obtained from participants before each phase of the study.

Study Context

We evaluated a university-based physical activity program that is offered to families in the community with children up to the age of six (free of cost). The program runs on Saturday mornings in two, hour-long sessions with a maximum of 30 children per session, where parental/guardian supervision is required. The development of this program has been underpinned by physical literacy concepts. Briefly, the program consists of child-driven free play in an environment where extensive equipment and instructor support are available. For the majority of the session (45 minutes), children are free to explore a variety of equipment (e.g., balls, trampolines, sports equipment) with some instruction from volunteers. This type of free, unstructured play has been found to encourage the development of physical literacy (De Rossi, Matthews, MacLean, & Smith, 2012). Self-directed play allows children to define their own rules and develop intrinsic motivation to be active. For the final 15 minutes, the children take part in an organized activity. This activity encourages the children to move, often along with their parent/guardian. Additionally, the chosen activity does not require equipment, so that parents/guardians can replicate it at home with their child. Given that the program is only offered once per week, the families are encouraged to maintain their activity at home and outside of the physical activity programming.

The program has been offered to the community for over 20 years in a kinesiology/recreation/physical education department. The program was initially developed and offered as a means to provide experiential learning to the department's physical education students. Although it has grown over the past decades, experiential learning remains a key facet. Adult activity is also promoted as parents/guardians participate with children to explore a variety of fundamental movement skills (e.g., jumping, running, kicking). A university faculty member, along with undergraduate and graduate student volunteers, oversees the program.

Participant Recruitment

Recruitment for Phase One (online survey) took place through the physical activity program in the winter semester of 2016 (January-April 2016) as well as through social media, email distribution to local listservs, and word of mouth. Participants did not have to be currently attending the program to take part, nor did they ever have to have attended the program in the past. This was done to determine whether there were people who wished to attend the program but could not, for reasons not known to program organizers. Those who had not participated in the program

were not asked questions specific to the program itself but were asked about their beliefs regarding physical literacy and about other programming they attend in the city (data not presented here). For Phase Two, participants could indicate that they wanted to volunteer to be interviewed through the Phase One online survey. All participants who expressed interest in conducting an interview were contacted. Only participants who had attended the program were asked to take part in Phase Two.

Data Collection

The survey used in Phase One was hosted on Surveymonkey.com. Participants provided demographic information, details about their child(ren's) participation, along with 31 questions about the physical activity program (e.g., duration and frequency of program attendance, knowledge of physical literacy, and perceived strengths, weaknesses, and benefits of the program). Questions were presented in multiple formats, such as Likert scales (e.g., please rate your level of agreement, where 1 is strongly disagree and 5 is strongly agree) and open-ended questions (e.g., overall, what do you think are the major strengths of the program?). Phase Two consisted of one-on-one semi-structured interviews that were audio recorded and transcribed verbatim. Prior to conducting any interviews, the research team developed an interview guide. The guide included questions regarding participants' experiences with the physical activity program, as well as program attendance history, perceived benefits for their child, perceived benefits for themselves, program strengths and weaknesses, and their ideas for improving inclusivity, accessibility, and sustainability of the program, along with probes corresponding to each question. All interviews were conducted by a single researcher (R.B.). Transcripts were returned to participants for verification before data analysis.

Data Analysis

IBM SPSS v.23 was used to analyze Phase One data. Frequencies and percentages of responses were tabulated. Phase Two interview transcriptions were uploaded into Atlas.ti v.7 and analyzed using Lichtman's (2013) "Three C's Analysis Approach" (i.e., Coding, Categorizing, Concepts). Codes were assigned to interviewee's words or sentences that expressed their most prominent thoughts and ideas. One reviewer coded all transcripts (R.B.), sorting data into codes (n=44), and then grouped into specific categories (n=5), and finally merged into three main concepts. Following each step of the coding process, the analyst conferred with other members of the research team (most often K.J. or E.C.) to offer additional perspectives and ensure the coding fit participants' interview transcripts.

Results

Phase One: Quantitative Evaluation

In total, 93 parents/guardians participated in Phase One (online survey), most of whom had attended the program (n=84, 91.3%). The majority of respondents were female (n=74, 79.6%), aged 36-40 years (n=36, 38.7%), and identified as a parent (n=86, 92.5%). Reported income was high, with 65.6% (n=61) reporting an income of \$100,000 or greater. Demographics of survey respondents are presented in Table 1. Overall, feedback on the program was positive (Table 2). Participants felt that the program achieved its primary goal of developing physical literacy in children, which was felt to be 'very' important to child development. Respondents most often reported feeling that the program offered an opportunity for children to develop their own physical

literacy, within a setting that allowed for trying new things and risk-taking, and that it offered an opportunity for children to interact with others and develop social skills (e.g., sharing and conflict resolution). Other perceived benefits included unique and novel activity equipment, free cost, non-committal design, and taking place within a safe, indoor space. Table 3 shows the weaknesses and potential barriers to the program as identified by participants. Briefly, respondents felt that the participant cap of 30 children per session, poor advertisement, the times the program was offered, and that the title of the program contained the term "physical literacy" were the main barriers and weaknesses.

Table 1
Survey Participant Demographics

Survey Participant Demographics	
Demographic Variable	n (%)_
Age (n=93)	
19-25	2 (2.2%)
26-30	8 (8.6%)
31-35	25 (26.9%)
36-40	36 (38.7%)
41-45	16 (17.2%)
46-50	5 (5.4%)
76-80	1 (1.1%)
Sex (n=93)	
Female	74 (79.6%)
Male	19 (20.4%)
Race (n=93)	
White/Caucasian	89 (95.7%)
Hispanic	1 (1.1%)
Asian/Pacific Islander	1 (1.1%)
Multiple/Other	2 (2.2%)
Income (n=93)	
\$25,000-\$49,999	4 (4.3%)
\$50,000-\$74,999	10 (10.8%)
\$75,000-\$99,999	11 (11.8%)
\$100,000-\$124,999	16 (17.2%)
\$125,000-\$149,999	17 (18.3%)
\$150,000-\$174,999	12 (12.9%)
\$175,000-\$199,999	5 (5.4%)
\$200,000+	11 (11.8%)
Prefer not to answer	7 (7.5%)

Table 2
Evaluation of the Physical Activity Program

Survey Question	n (%)
Overall, I am satisfied with the university's physical acti	ivity program (n=81)
Disagree	3 (3.7%)
Neither agree or disagree	3 (3.7%)
Agree	74 (91.3%)
Unsure	1 (1.2%)
I am satisfied with the equipment (n=81)	
Disagree	4 (4.9%)
Neither agree or disagree	3 (3.7%)
Agree	72 (88.9%)
Unsure	2 (2.5%)
I am satisfied with the location of the physical activity p	rogram (n=81)
Disagree	3 (3.7%)
Neither agree or disagree	1 (1.2%)
Agree	76 (93.9%)
Unsure	1 (1.2%)
I am satisfied with the times of the physical activity prog	gram (n=81)
Disagree	8 (9.9%)
Neither agree or disagree	4 (4.9%)
Agree	67 (82.7%)
Unsure	2 (2.5%)
I am satisfied with how often the physical activity progra	am is offered (n=80)
Disagree	21 (26.3%)
Neither agree or disagree	11 (13.8%)
Agree	48 (60%)
Unsure	0 (0.0%)
Children are learning to be physically literate (n=80)	
Disagree	2 (2.6%)
Neither agree or disagree	6 (7.5%)
Agree	71 (88.8%)
Unsure	1 (1.3%)

Table 3
Perceived Weaknesses of the Physical Activity Program

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Weakness (n=72)	n (%)
Participation cap (30 child limit)	45 (62.5%)
Poorly Advertised	23 (31.9%)
Program times	12 (16.7%)
The name, what does physical literacy mean?	11 (15.3%)
Parking	5 (6.9%)
Inadequate Equipment (i.e., lack of variety)	5 (6.9%)
Program equipment	4 (5.6%)
Not accessible (e.g., age, skill)	4 (5.6%)
Not Inclusive	3 (4.2%)
Held indoors	3 (4.2%)
Transportation	2 (2.8%)
Geographic Location	1 (1.4%)
Other ^a	23 (31.9%)
Note: Respondents were able to select more than one response	

Note: Respondents were able to select more than one response

Through the survey, participants were asked to offer suggestions for changes to the program using a single open-ended question. Given that there is a cap of 30 children per session, many respondents stated they would like additional program sessions and different times. Other common responses included the amount of structure offered in the program, with some suggesting "more organized exercises" while others suggested to "keep the structure open and free play with songs at the end." The preferred structure of the program appeared to depend on the age of the child as it was suggested there was a need to "strike a balance between the amount of organized play for different age groups."

Finally, an open-ended question asked participants about perceived physical and social/emotional developmental benefits of the program (Table 4). Respondents identified physical benefits such as children developing physical competence (e.g., learning their own abilities, developing gross and fine motor skills), being a good environment for children to try new things and take risks, helping children to meet physical activity guidelines, being a good place for children to be physically active, children learning to play with others, and finding activities their child enjoys. Responses based on social/emotional benefits were categorized into four themes: increased confidence/self-efficacy, learning to interact with other children (e.g., sharing, conflict resolution), vicarious learning, and learning to interact with other adults.

^a More for older/younger children, low staff engagement, not available year-round, sign-up procedure

Table 4

Benefits of Participating in the University's Physical Activity Program	
Growth and development of physical abilities (n=68)	n (%)
Developing physical competence (e.g., learn own ability, gross/fine motor skills)	40 (58.8%)
Good environment to try new things/take risks	25 (36.8%)
Good place to give child activity	17 (25.0%)
Learning to play with others	10 (14.7%)
Finding activities child enjoys	2 (2.9%)
Helps to meet physical activity guidelines	2 (2.9%)
Social/emotional growth and development (n=61)	
Increased confidence/self-efficacy	19 (31.1%)
Learning to interact with other children (e.g., sharing, conflict resolution)	49 (80.3%)
Vicarious learning	4 (6.6%)
Learning to interact with other adults	6 (9.8%)

Phase 2: Qualitative Evaluation

Ten interviews were conducted, ranging in length from 20-60 minutes. Three primary themes were identified from the interviews. The factors parents perceived to be most important were: (a) focus on the quality of the program, (b) establish a welcoming environment, and (c) consider to be "win-win" for participants and the university. Participants also offered practical suggestions for improvements and expansion of the current program.

Focus on the quality of the program. Respondents valued the program and wanted it to continue and remain of high quality. One participant described the physical activity program as "one of the first opportunities a parent has, especially for the very young children, to help to start to instruct them on proper ways of behaving and interacting with other children in the physical environment." The supervised and well-equipped setting within an indoor environment allowed for better parent-child interaction. One parent described the environment as a place where they could "interact with [their children] in a physical capacity without having the fear of...[them] running away from [them]." They indicated that this setting allowed children to "learn a bit more about what [their] body can do ... all of the different equipment provides different context for [them] to explore some of the things that [they've] been learning."

Parents offered suggestions for improvement. For example, a common issue with this type of programming is the limited participant capacity per session. This resulted in parents feeling frustrated that they showed up to the program but were turned away at the door due to this limitation; "it is not great when you're the one being 31 [with the maximum number of 30 participants], and you can't get in and you sort of built your morning around being in there." Although the fact that registration was not required was perceived as a positive feature, attendees would also have liked to know whether they would be turned away. One participant felt that the program "could do an online thing [registration], so the individual would know not to show up at a certain time and get rejected." Other suggestions included enhanced communication methods (e.g., offering printed schedules, a website, or email group to track session dates and times) and diversified program options (e.g., aquatic physical activity sessions and various levels of challenge for different age and ability groups).

Establish a welcoming environment. The respondents suggested that the program may not necessarily be welcoming to all, but it could be with a few changes. For example, program branding (i.e., physical literacy experience) was identified as a potential barrier, as they felt that

the branding used an academic term. One respondent stated that the "program has not necessarily been branded in the proper way because this program is catering to entitled, in terms of academics, not what the community actually sees it as." When asked to describe the program, many parents used terms such as "gym class" or called it a "thing at the gym." It was felt that because the title contains "physical literacy," it does not "lend itself to the general public understanding exactly what that means;" therefore, participants were describing it in their own way.

Additionally, the university setting can be a unique challenge when ensuring a welcoming environment. One respondent explained, "if you haven't been to the university before, either as a student or as an employee, it can be an intimidating place." Although the university was perceived as a potential barrier, participants often offered suggestions to overcome this issue. For example, parking was an issue that could be addressed to make the program more welcoming. "A designating parking lot" and "having some of those students who are in the room out in the parking lot helping parents figure out exactly where they need to go and park." Also, ensuring volunteers are identifiable through uniforms. "If they had a T-shirt or something on that made them feel, like university students, people who wear uniforms tend to feel a part of the program that they're attached to." Additional suggestions for creating welcoming environments included reaching-out to underserved groups (e.g., refugees) to address the accessibility issues that they may experience.

Consider to be "win-win" for participants and the university. Respondents recognized that this type of program could benefit both the participants and the university. According to respondents, the program was a part of the university institution and they felt that it offered a service while acting as a learning opportunity for students. Participants frequently mentioned that many of the student volunteers might have been uncomfortable approaching and interacting with children. One participant felt that "training ... done either in a classroom setting or somewhere that they could volunteer to be around young kids so that they knew how to interact with young kids and know exactly what to do."

Further, suggestions were around monetizing the program with the goal of "building a scholarship fund so that somewhere along the lines we're going to help another student in the school," or the university could "use it as research study material in early childhood education, probably elementary physical education." Lastly, respondents recognized the program as an important offering to the community given that "in Newfoundland, in particular, there's not a lot of spaces for young children, especially toddlers to go to be active." One participant perceived the program as a way to bring people in who may want to "become involved, they could be new volunteers, they could be donors, and they could be somebody who just wants to bring on a mentoring opportunity."

Discussion

The purpose of this study was to: evaluate a university-based physical activity program aimed at addressing a local need for programming for pre-elementary age children; identify parents' perceptions of barriers/challenges, opportunities, and areas of improvement for the program; and create recommendations to inform other university-based physical activity programs. Overall, the evaluation of this university-based physical activity program was positive, as participants felt that the program contributed in a meaningful way to their child's development. Participants reported feeling that the physical activity program aided in their child's physical development and development of physical activity skills (e.g., coordination, risk assessment), social development, and self-confidence, among other benefits. This physical activity program

offers unique physical activity experiences for children and allows for social interaction with similarly aged peers, as well as other parents and adults. It also provides a safe environment for children to take risks and explore their physical capabilities in a child-driven, unstructured environment. This is reflected in the literature, as it has been found that exposure to physical activity programming improves a child's physical literacy development, as well as several other physical and mental benefits (Edwards et al., 2016; Timmons et al., 2012; Tremblay, 2012).

The program was viewed as successful and an asset to the university and the community, illustrated by the responses of interviewees who wanted to ensure a quality program was offered, and believed that the current program was a "win-win" for the school and community. University-based programming can create positive community-university relationships, which are rare in academia (Buys & Bursnall, 2007). Universities are well situated to be a part of their local community and create partnerships with local stakeholders and community members. This study demonstrates the importance of community-university partnerships and incorporating a voice from community members. Feedback from participants can be used to improve this partnership by using a common language and seeking continual input from community stakeholders (Hart & Wolff, 2006). Participants of this study identified several weaknesses of the program, including the cap of 30 children, poor advertisement, and a poorly named program. To address these weaknesses, organizers should seek input from the parents who bring their children to the program, as well as other stakeholders, such as the student volunteers, to determine how best to improve the program.

The value of community-university partnerships is shown through increased research opportunities, the development of applied research, and increased community engagement and recognition (Buys & Bursnall, 2007). These programs also benefit the community by creating increased social support and cohesion, increased knowledge transfer, improved community health through increases in activity levels, and reduced barriers to physical activity by providing facilities and resources for community members to take part in physical activity (Kahn et al., 2002). Considering benefits available to both universities and their communities through physical activity programming, universities that can offer such programs should make it a priority to do so. Engaged universities have mutually beneficial knowledge creation and sharing at the core of their beliefs, with community engagement as the centre of the institution's values (Fitzgerald, Bruns, Sonka, Furco, & Swanson, 2016).

To this point, limited research has focused on how best to engage universities in increasing their value within the surrounding communities. Further, most programming has focused on sending university students into the community to address a need, as opposed to bringing the community to the campus to share in its resources (Bruning, McGrew, & Cooper, 2006). Through community-based learning programs, such as the physical activity program examined in this study, universities can offer a novel learning experience to their students and increase its presence within the community. Previous studies have illustrated the value of such experiential learning. University students can both meet course objectives and address community needs through service-learning (Jacoby, 1996). Service-learning provides experiential learning opportunity for students while simultaneously promoting health within the community in which they are working (Konukman & Schneider, 2012; Watson, Hueglin, Crandall, & Eisenman, 2002).

This study adds to the research on university-based physical activity programming. The focus was to understand the experience of parents to inform the development of current and future university-based programming. A limitation of this study is the homogeneity of respondents, which may suggest an inability of this physical activity program to attract participants from underserved groups. Previous studies have established that university-based programming can be

intimidating to disadvantaged groups, preventing them from attending (Cortis, Katz, & Patulny, 2009). Because an effective health promotion strategy is to address the needs of underserved community members (DeHaven, Gimpel, Dallo, & Billmeier, 2011; Torres, Spitzer, Labonté, Amaratunga, & Andrew, 2013), this program and future university-based physical activity programs should offer an accessible, welcoming program.

The generalizability of this study may be limited, as it evaluates only a single university-based program. Currently, there is limited research in this area, so few studies are available as a comparison. It is likely that other universities may face unique barriers, but the broader findings (e.g., ensuring a welcoming environment and quality programming), could be generalizable to other universities. Further, this is not a complete evaluation, given that this evaluation only captures the experience of the parents within the program. The experiences of children and volunteers could also be obtained to provide a comprehensive evaluation.

Considering the impact of physical inactivity on the health and development of children, it is essential to encourage physically active lifestyles at a young age to increase the likelihood of children maintaining physical activity levels throughout their lives (Sallis, Prochaska, & Taylor, 2000). By promoting physical activity in children through self-directed physical literacy programming aimed at increasing enjoyment of physical activity, we may see increases in activity levels and future reductions in chronic disease rates (De Rossi, Matthews, MacLean, & Smith, 2012; Durstine, Gordon, Wang, & Luo, 2013). Universities already play a crucial role in physical activity programming, universities may be able to have a greater impact on the health of the surrounding community. Further, if programs are accessible and inclusive, there is potential to address determinants of health within the surrounding community, especially if the program can offer transportation, is free of cost, and can use university facilities to overcome potential lack of recreation facilities in the area (Ball, Carver, Downing, Jackson, & O'Rourke, 2015). The program evaluated within this study attempted to provide a program that is accessible to all, regardless of health determinants, but improvements are still needed.

Conclusion

There are many established benefits of introducing children to physical activity during their early years. Regardless, many Canadian children are inactive. Through physical activity programming, children can learn to become physically active and increase their self-efficacy and self-confidence in physical situations. The university-based physical activity program evaluated in this study was found to be a positive experience for both parents and their children. Results suggest participants felt that this program offered benefits to themselves, their children, the host university, and the surrounding community. Participants reported feeling that it was important to provide a welcoming environment and maintain the quality of the program to best achieve these benefits. Universities have a responsibility to their surrounding community and should allow community members to avail of the facilities on campus. By offering programs for the public, such as a physical activity program, universities can improve the physical activity levels and health of the surrounding population while developing new university-community relationships; a "win-win" for the community and university. Other universities should offer similar programming, if possible, following recommendations provided within this evaluation.

Funding

This study was supported by the host university, and an RBC (Royal Bank of Canada) Learn to Play Leadership Grant.

Conflict of Interests

The authors declare they have no conflict of interest. All authors critically reviewed the manuscript content and have approved the final version submitted for publication. The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the funders.

References

- Ball, K., Carver, A., Downing, K., Jackson, M., & O'Rourke, K. (2015). Addressing the social determinants of inequities in physical activity and sedentary behaviors. *Health Promotion International*, 30(S2), ii8-ii19.
- Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos R. J. F., & Martin, B. W. (2012). Correlates of physical activity: why are some people physically active and others not. *The Lancet*, *380*(9838), 258-271.
- Blondell, S. J., Hammersley-Mather, R., & Veerman, J. L. (2014). Does physical activity prevent cognitive decline and dementia? A systematic review and meta-analysis of longitudinal studies. *BMC Public Health*, *14*(510). doi: 10.1186/1471-2458-14-510.
- Borduas, C., Cameron, E., Yi, K. J., Kilborn, M., McGowan, E., Buote, R., & Loeffler, T. A. (2018). Exploring university-based physical literacy programming: Perspectives of service providers. *PHEnex Journal*, *9*(2).
- Bruning, S. D., McGrew, S., & Cooper, M. (2006). Town-gown relationships: Exploring university-community engagement from the perspective of community members. *Public Relations Review*, 32, 125-130.
- Burdette, H. L. & Whitaker, R. C. (2005). Resurrecting free play in young children: Looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatrics and Adolescent Medicine*, 159(1), 46-50.
- Burke Johnson, R., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research* 1(2), 112-133.
- Buys, N. & Bursnall, S. (2007). Establishing university-community partnerships: processes and benefits. *Journal of Higher Education Policy and Management*, 29(1), 73-86.
- Colley, R. C., Garriguet, D., Adamo, K. B., Carson, V., Janssen, I., Timmons, B. W., & Tremblay, M. S. (2013). Physical activity and sedentary behavior during the early years in Canada: a cross-sectional study. *International Journal of Behavioral Nutrition and Physical Activity*, 10(54). doi: 10.1186/1479-5868-10-54
- Cortis, N., Katz, I., & Patulny, R. (2009). *Engaging hard-to-reach families and children*. Canberra, Australia: Australian Government: Department of Families, Housing, Community Services and Indigenous Affairs.
- De Rossi, P., Matthews, N., MacLean, M. & Smith, H. (2012). Building a repertoire: exploring the role of active play in improving physical literacy in children. *Revista Universitaria de la Educacion Fisica y el Deporte*, *5*(5), 38-45.
- Diamond, A. & Lee, K. (2011). Interventions shown to aid executive function development in children 4-12 years old. *Science*, *333*(6045), 959-964.
- Durstine, J. L., Gordon, B., Wang, Z., & Luo, X. (2013). Chronic disease and the link to physical activity. *Journal of Sport and Health Science*, 2, 3-11.
- Edwards, L. C., Bryant, A. S., Keegan, R. J., Morgan, K., & Jones, A. M. (2016). Definitions, foundations and associations of physical literacy: A systematic review. *Sports Medicine*. Advance online publication. doi:10.1007/s40279-016-0560-7
- Fitzgerald, H. E., Bruns, K., Sonka, S., Furco, A., & Swanson, L. (2016). The centrality of engagement in higher education. *Journal of Higher Education Outreach and Engagement*, 20(1), 223-244.

- Fox, K. R. (2000). The effects of exercise on self-perceptions and self-esteem. In S. J. H. Biddle, K. R. Fox, & S. H. Boutcher (Eds.), *Physical activity and psychological well-being* (pp. 88–117). London: Routledge
- Hart, A., & Wolff, D. (2006). Developing local 'communities of practice' through local community-university partnerships. *Planning, Practice & Research, 21*(1), 121-138.
- Hart, A. & Northmore, S. (2010). Auditing and evaluating university-community engagement: Lessons from a UK case study. *Higher Education Quarterly*, 65(1), 34-58.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K. E., ... & Corso, P. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22(4), 73-107.
- Lichtman, M. (2013). *Qualitative research in education: A user's guide*. Los Angeles, CA: Sage Publications.
- Longmuir, P. E., & Tremblay, M. S. (2016). Top 10 research questions related to physical literacy. *Research Quarterly for Exercise and Sport*, 87(1), 28-35.
- ParticipACTION. (2016). Are Canadian kids too tired to move? The 2016 ParticipACTION Report Card on Physical Activity for Children and Youth. Toronto, ON: ParticipACTION.
- Playwork Principles Scrutiny Group. (2005). *The Playwork principles*. Cardiff: Playwork Principles Scrutiny Group.
- Reiner, M., Niermann, C., Jekauc, D., & Woll, A. (2013). Long-term health benefits of physical activity a systematic review of longitudinal studies. *BMC Public Health*, 13(813). doi: 10.1186/1471-2458-13-813
- Sallis, J., Prochaska, J., & Taylor, W. (2000). A review of correlates of physical activity of children and adolescents. *Medicine & Science in Sports & Exercise*, *32*(5), 963–975. http://doi.org/10.1097/00005768-200005000-00014
- Timmons, B. W., LeBlanc, A. G., Carson, V., Connor Gorber, S., Dillman, C., Janssen, I., & Tremblay, M. (2012). Systematic review of physical activity and health in the early years (aged 0–4 years). *Applied Physiology, Nutrition, and Metabolism*, *37*, 773–792. http://doi.org/10.1139/H2012-070
- Tremblay, M. S. (2012). Major initiatives related to childhood obesity and physical inactivity in Canada: The year in review. *Canadian Journal of Public Health*, 103(3), 164-169.
- Tremblay, M. S., LeBlanc, A. G., Carson, V., Choquette, L., Connor Gorber, S., Dillman, C., Timmons, B. (2012). Canadian Physical Activity Guidelines for the Early Years (aged 0–4 years). *Applied Physiology, Nutrition, and Metabolism*, *37*, 345–356. http://doi.org/10.1139/H2012-018
- Tremblay, M. S., Warburton, D. E., Janssen, I., Paterson, D. H., Latimer, A. E., Rhodes, R. E., Duggan, M. (2011). New Canadian physical activity guidelines. *Applied Physiology*, *Nutrition, and Metabolism*, *36*(1), 36–58. http://doi.org/10.1139/h11-009
- Trost, S. G., Owen, N., Bauman, A. E., Sallis, J. F., & Brown, W. (2002). Correlates of adults' participation in physical activity: Review and update. *Medicine & Science in Sports & Exercise*, 34(12), 1996–2001. http://doi.org/10.1249/01.MSS.0000038974.76900.92
- Warburton, D. E. R., Nicol, C. W., & Bredin, S. S. D. (2006). Health benefits of physical activity: The evidence. *Canadian Medical Association Journal*, 174(6), 801–809. http://doi.org/10.1503/cmaj.051351

Zschucke, E., Gaudlitz, K., & Ströhle, A. (2013). Exercise and physical activity in mental disorders: clinical and experimental evidence. *Journal of Preventative Medicine & Public Health*, 46(Suppl. 1), S12-S21.