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Parents and Physical Literacy: Knowledge, Perceptions, and Responsibilities

Natalie E. Houser
University of Manitoba
Winnipeg, MB
CANADA

M. Louise Humbert
University of Saskatchewan
Saskatoon, SK
CANADA

Lauren D. Sulz
University of Alberta
Edmonton, AB
CANADA

Author Biographies:

Natalie Houser is a postdoctoral fellow in the College of Rehabilitation Sciences at the University of Manitoba. Dr. Houser's current research is focused on physical literacy enriched pedagogy and creating physical literacy enriched movement opportunities in different contexts, working towards building more confident and competent movers.

Louise Humbert is a Professor in the College of Kinesiology at the University of Saskatchewan. She is a community based researcher who seeks to listen, learn and respond to the movement experiences of children and youth--- and those who teach, coach and care for them.

Lauren Sulz, PhD, is an Associate Professor in the Faculty of Education at the University of Alberta. Her research program focuses on whole-school strategies to promote health and wellbeing of children and youth. Dr. Sulz teaches undergraduate and graduate courses in health and physical education curriculum and pedagogy.

Abstract

Parents play a critical role in their child's physical activity behaviours. However, limited research has focused on parents' understanding and perceptions of physical literacy (PL). This study gained insight into parent's knowledge, understanding, and perceived responsibility for the development of their child(ren)'s PL. Parents/guardians (n = 384) completed a telephone survey asking about their (a) understanding of the concept of PL, (b) beliefs in who is responsible for PL development, (c) perspectives on their own child's PL, and (d) perceived opportunities for further PL development. Findings indicated a lack of knowledge about the concept of PL with 80% of parents reporting they had never heard of PL. Further, participants (88%) indicated parents were primarily responsible for the development of PL in children. These findings demonstrate that there is an opportunity to enhance parental knowledge and understanding of PL and promote a shared responsibility (home, school, community) of children's PL development.

Keywords: children; youth; parent perspectives; health; education.

Résumé

Les parents jouent un rôle critique dans la pratique d'activité physique de leur enfant. Cependant peu de recherches ont exploré la compréhension et les perceptions de parents de ce qu'est la littératie physique. La présente étude dévoile les connaissances, la compréhension et la responsabilité perçue de parents du développement de la littératie physique de leur enfant. Des parents/tuteurs (n=384) ont répondu à un sondage téléphonique sur (a) leur connaissance du concept, (b) la ou les responsables du développement de la littératie physique, (c) leur point de vue sur la littératie physique de leur enfant, et (d) des occasions potentielles de développement de la littératie physique. Les résultats révèlent un manque de connaissance du concept chez les parents car 80% des répondants disent n'en avoir jamais entendu parler. De plus, 88% des répondants affirment que les parents sont les premiers responsables du développement de la littératie physique des enfants. Ces résultats démontrent la présence d'une occasion de développement des connaissances et de la compréhension du concept de même que la promotion d'une responsabilité partagée (parent, école, communauté) du développement de la littératie physique des enfants.

Mots clés : enfant; jeune; perception des parents; santé; éducation.

Introduction

Physical activity is influential on various health indicators (Janssen & LeBlanc, 2010; Poitras et al., 2016), many of which are important in the healthy growth and development of children and youth (e.g., physical and mental health). Despite the known influence of physical activity on health, less than 40% of Canadian children and youth are meeting the physical activity recommendations of 60 minutes of moderate-to-vigorous physical activity per day (Carson et al., 2017). Research has suggested that the development of physical literacy may better equip individuals for greater levels of physical activity participation (Cairney et al., 2019). For example, children who are more physically literate are more likely to be physically active (Bremer et al., 2020) and meet the Canadian physical activity and sedentary behaviour guidelines (Belanger et al., 2018; Tremblay et al., 2016). Further, through its role in promoting a positive lifelong physical activity trajectory, physical literacy can be viewed as a determinant of health and wellbeing in children (Cairney et al., 2019). Based on the association between physical literacy and physical activity, the development of physical literacy in children and youth may play a role in reducing long-term health repercussions (Cairney et al., 2019; Haverkamp et al., 2020; Rodriguez-Ayllon et al., 2019).

As our collective understanding of physical literacy has continued to develop, and support has grown for the concept across multiple sectors, different definitions of physical literacy have emerged. Physical literacy is defined by Physical and Health Education Canada (2015) as "individuals who move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person" (p.1). Similarly, Whitehead (Whitehead, 2001, 2010, 2013) perceived physical literacy to encompass the motivation, competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life. It is broadly accepted that physical literacy is a multidimensional holistic concept that involves individuals concurrently developing the competence, confidence, knowledge, and motivation to engage in physical activity (Sport for Life, 2019; Whitehead, 2013). Physical literacy must be nurtured, supported, and encouraged; and importantly, ways to support children's unique physical literacy journey must be sought (Hardman, 2011; Roetert et al., 2018; Sport for Life, 2019). Children experiencing a variety of different movements in many different environments is critical in the development of physical literacy (Whitehead, 2001). Furthermore, a wide range of individuals influence the development of physical literacy in children, which include teachers, coaches, friends, and parents (Sport for Life, 2019). These individuals can be involved at different stages, and work together coherently, to help support the development of physical literacy (Sport for Life, 2019).

In the past several years, Canada has progressed in physical literacy research by adopting principles and practices that can be applied across multiple sectors including education, sport, recreation, and public health (Public Health Agency of Canada, 2018; Sport for Life, 2019). In a physical education context, the development of physical literacy is an overarching goal of

provincial physical education curriculum in Canada and the United States (Roetert et al., 2017). The United Nations Educational, Scientific and Cultural Organization (United Nations Education Scientific and Cultural Organization- UNESCO, 2015) recognizes physical literacy as one of the central tenets in a quality physical education framework and several provincial curricula in Canada have adopted physical literacy as a new approach to physical (Government of Manitoba, 2018; Saskatchewan Ministry of Education, 2010). Consequently, a large amount of focus has been directed towards teachers' perceptions and understanding of the concept of physical literacy. For example, Stoddart & Humbert (2017) and others (e.g., (Castelli et al., 2015; Leiss, 2006; Robinson et al., 2018) have explored physical education teachers' understanding of physical literacy, as physical education classes provide an optimal environment for the development of physical literacy. In a similar manner, sport organizations such as Canadian Sport for Life, have acknowledged sport and sport coaches as influential in an individual's physical literacy journey. This acknowledgement has resulted in a paradigm shift in the way sport is planned, delivered, and accepted within communities (Johnson et al., 2016). Furthermore, the (Public Health Agency of Canada, 2018) put forth a 'common vision' as a collective way to guide the country to increasing physical activity and reducing sedentary behaviour. This national policy document identifies five independent principles that guide the common vision, one of which is 'supporting physical literacy.' Specifically, the policy recommends governments, organizations, and community members should provide Canadians with education and experiences that facilitate the development of their physical literacy. Although there is much more to learn about physical literacy within these sectors, there is a base understanding that can guide future work.

While parents are not truly classifiable as a sector, research has identified parents as 'gate keepers' to children's physical activity and physical literacy development, little is known about the experiences and perspectives of parents with respect to physical literacy and their children (Johnson et al., 2016; Rhodes et al., 2010). The 2020 ParticipACTION report card released a consensus statement on the role of family in children's movement behaviours, emphasizing the influential role that family plays in encouraging and modelling movement behaviours (ParticipACTION, 2020). Evidence suggests that family attitude on physical activity participation (Whitehead, 2010), parent physical activity behaviours (Carson et al., 2015), and the home environment (Harrington et al., 2016) are all influential on their child's level of activity. Since parents are known to have a significant impact on their children's physical activity participation (Whitehead, 2010), and serve as influential advocates within other environments, including the school and community, it is important that parents are aware of physical literacy and promote its components within the environments in which children live, learn, and play.

Although research on parents and physical literacy is not in abundance, Stoddart and Humbert (2017), investigated teachers' understanding of physical literacy, and learned that 75% of parents never mentioned the development of physical literacy to their children's teachers, rather parents used terms such as physical activity and physical fitness, indicating a possible lack of understanding and awareness of the concept. Many authors (Belon et al., 2014; Rito et al., 2013; Sallis et al., 2012) recommend that diverse sectors work together to support children in developing physical literacy, including home environments. Further, Whitehead (2013) discussed a misunderstanding of the concept of physical literacy is that physical literacy is only relevant to the school environment, highlighting that all significant others who are in a position to influence attitudes to, and competence in, physical activity have critical roles to play. Therefore, developing physical literacy in our children will take the combined efforts of individuals and organizations in

multiple sectors, including the parents and the home environment, which is a critical and often overlooked piece of the physical literacy puzzle.

Goal of the Research

The purpose of this research was to begin to gain insight into parent's knowledge, understanding, and perceived responsibility for the development of their child(ren)'s physical literacy. This paper explored and discussed three research questions: (a) what are parents' knowledge and understanding of physical literacy? (b) what are parents' perceptions of their child(ren)'s physical literacy? and (c) who do parents perceive is responsible for developing children's physical literacy? Through the examination of parents' knowledge, understanding, and perceived responsibilities, we can begin to address the gap present in the literature and inform future work in the development of physical literacy among children and youth.

Method

Participants

A sample of 384 parents and guardians aged 19 years or older with children youth under 16 years were asked to participate in a phone survey. They determined the necessary sample size to ensure a representative sample of parents living in one Western Canadian province (n=384), according to the predetermined confidence interval, margin of error and population size (Cochran, 1977). The sample was ordered by the use of postal codes, and random digit dialing was used to contact the predetermined number of participants required to form the representative sample. The response rate of the survey was 29%, which is higher than the suggested average telephone survey response rate of 17% (Government of Canada, 2019). The response rate was calculated as follows: completed interviews (384) / (refusals (912) + interviewer terminates (1) + respondent terminates (27) + completed interviews (384)). This sample is generalizable to the province's population (19 years of age and older) (Statistics Canada, 2012) ± 5% at the 95% confidence interval.

Ethical Permission

Permission to conduct the present study was granted by the researchers' University ethics board. Prior to initiation of the phone survey, all parents and guardians consented to participate via informed verbal consent.

Survey Design

A multidisciplinary team was formed to develop the survey. This team included three university professors, representatives from sport, recreation and health promotion, the Ministry of Education, and a teacher and school-based administrator. Once the survey was developed, a Delphi group of 8 members was established, which was comprised of a panel of Canadian school-based educators and professionals in related fields (e.g., physical activity in children and youth, physical literacy, physical education). In addition, several members of the Delphi group were also parents of children and youth. Prior to reviewing the survey, all members of the Delphi group met with

the researchers to understand the purpose of the research and the population of interest. The Delphi group was asked to independently review a draft of the survey by evaluating: (a) whether the items captured the essence of the purpose of the project; (b) if the items aligned with the concepts and consensus statement of physical literacy; and (c) if the wording of each question was clear. Using the feedback from the Delphi group, the survey design team revised and adjusted the items accordingly. After the revisions, the survey was returned to the Delphi group for a final review. Each Delphi group member reviewed the survey again, and minor changes to the survey were completed after the final review. The finalized survey captured information around parents' knowledge and understanding of physical literacy, perceptions of their child(ren)'s physical literacy and physical activity levels, and responsibilities around its development. The survey included a combination of Likert scale and multiple-choice questions. An example question from ***understanding and responsibilities of physical literacy is:*** "Who do you think has the primary responsibility for helping children develop physical literacy?", with 4 multiple choice options of (a) Parents, (b) Schools, (c) Communities, (d) Other. Another example is "Please tell me your level of agreement with the following statement: I believe my child or children are physically literate" with 5 possible Likert scale responses ranging from "strongly agree" to "strongly disagree". An example question from ***physical literacy development and support needs is*** "Using the following list, what do you need in your HOME to develop your child's physical literacy?", with a list of options including: (a) Greater knowledge about how I can develop physical literacy with my children, (b) More time to spend with my children, (c) More areas in my home to play, (d) Closer proximity to green spaces and outdoor parks, (e) Other.

Administration of the Survey

A team of experienced researchers field tested the survey prior to the launch to test for comprehension, accuracy, survey performance, and software functioning. The results of the field test were shared with the research team and minor changes to the survey questions and survey script were made. The survey was conducted over the telephone by social science research laboratory at the associated university. This laboratory had expertise in survey development and telephone survey administration and purchased telephone numbers from an external company. Random digit dialing of both cell phones and land lines was used to ensure a representative sample. When a call was made, the researcher requested to speak with the person in the household who was a parent or guardian with children between the ages of 0-16. To ensure a mixed gender sample, the parent or guardian with the birth date closest to the date of the survey phone call was asked to participate in the survey. The survey took approximately 15-minutes to complete and was conducted over an 11-day period. A dedicated Computer Assisted Telephone Interviewing (WinCati) application was used to lead the interviewer through the survey and recorded responses using an electronic computer-based instrument. This15-minute interview also included answering the demographic questions. All interviews were conducted by graduate students who completed a 3-hour training session on software use, call execution, disposition codes, and survey review; followed by survey-specific training.

Data Analysis

Descriptive statistics were calculated for parents' demographic characteristics (e.g., age, gender, income, etc.), their knowledge and understanding of PL, and their beliefs on factors and responsibilities related to their child's physical literacy development. Additionally, independent t-

tests were run to compare perceptions between mothers and fathers. Data were analyzed using IBM SPSS version 26.0 (Chicago, Illinois), and significance was determined at $p < 0.05$.

Results

Demographics

A total of 384 parents and guardians (hereafter referred to as parents) between the ages of 19 and 74 years (mean= 40.1 years; SD= 8.29) participated in this study, with 66% of the participants identifying as female. A further breakdown in age and sex demographics is presented in Table 1. From this sample, 54% of participants reported living in the city, 22% living in a town, and 20% living in a rural municipality. Approximately 12% of participants self-identified as a First Nation, Metis or Inuit person, 11% of participants were born outside of Canada, and 11% of participants identified as a visible minority (other than First Nation, Metis or Inuit person). The household income ranged from less than $25,000 to more than $150,000, with the largest percentage (18.5%) falling in the $75,000 to less than $100,000 bracket. Further, 43.2% of parents surveyed had two children and 32.6% had one child under the age of 16 years. The breakdown of age of participants' first child is as follows: 19.5% under the age of 6, 29.7% between 6 and 11 years, 50.8% 12 or older.

Table 1
Age and sex participant demographics

Age Group	Female	Male	Total
29 years or less	24	6	30
30-39 years	121	49	170
40-49 years	87	44	131
50-59 years	17	27	44
60-69 years	2	4	6
70 years +	1	0	1

Physical Literacy: Understanding and Responsibilities

Participants were asked if they had heard of the concept of physical literacy, to which 80% of participants responded no, with no significant difference in knowledge of the definition between mothers and fathers, $t(382)=0.899$, $p=0.37$, those who self-identified as a visible minority, $t(379)=0.457$, $p=0.648$, or those who self-identified as a member of First Nation, Metis or Inuit, $t(379)= -0.435$, $p=0.664$. At this point, and prior to continuing with the survey, participants were provided with the PHE Canada's definition of physical literacy: "Individuals who move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person" (Physical and Health Education Canada, 2015). This definition was chosen to align with the Canadian context in which this research was

conducted. Once parents were provided with this definition of physical literacy, they were asked about their level of agreement with the statement 'I believe my child/children are physically literate.' Overall, 50.4% of parents strongly agreed, and 41% of participants agreed that their child/children are physically literate. Similarly, there were no differences in responses on child's physical literacy between the responses of mothers and fathers, $t(382)=-1.46$, $p=0.15$.

The survey then shifted to focus on development of physical literacy, and parental beliefs around responsibility for its development. From a list of possibilities, factors that parents reported as being important for physical literacy development included 'opportunities to develop movement skills' (27.3%), 'playing sports' (25.3%), and 'instilling a sense of confidence in your child' (21.4%). Parents also reported 'finding the appropriate motivation' (12.8%), 'natural ability and instinct' (8.1%), and 'other' (3.9%) as important factor in developing physical literacy. The response 'other' included answers such as "all of the above," 'playing sports and natural ability/instinct,' and 'being a role model/having a good role model.'

To explore perceived responsibilities for children's development of physical literacy, parents were asked who had the primary responsibility for helping their children develop physical literacy. Parents were asked to choose from four options: parents, schools, community or other. The majority of participants believed 'parents' (88%) have the primary responsibility to develop physical literacy in their children. This overwhelming response of parental belief that they had primary responsibility for their child's physical literacy development was equally expressed by both mothers and fathers, $t(382)=0.375$, $p=0.71$, by those who do and do not self-identify as a visible minority, $t(379)=1.26$, $p=0.210$, and those who do and do not self-identify as a member of First Nation, Metis or Inuit, $t(379)=1.41$, $p=0.159$. Additional responses regarding responsibilities around physical literacy development included 'schools' (6.8%), 'communities' (1.8%), and 'other' (3.7%) which contained responses such as 'all of the above,' 'parents and teachers,' 'chief and council' and 'role models.'

Physical Literacy: Development and Support Needed

To better understand parental perceptions on physical literacy development within home, school, and community settings, participants were asked about their thoughts on the opportunities offered in each of the three settings. For the home setting, parents were asked how strongly they felt about the statement 'I believe my home, which includes my knowledge on developing physical literacy, available space to be active, and activity time with my child, etc., is helping my child to develop physical literacy.' Responses indicated that 49% of parents strongly agreed, and 46% of parents agreed with the statement. Parents were then asked what supports they needed to assist in the development of physical literacy in their children within the home environment. For this question, parents were able to select more than one response from a list of supports provided to the respondent. These included: greater knowledge about how I can develop physical literacy with my children, more time to spend with my children, more areas in my home to play, closer proximity to green spaces and outdoor parks, and other. The main supports that parents suggested would help in the development of their child's physical literacy in the home setting included 'more time to spend with my children' (73%), 'greater knowledge about how to develop my child's physical literacy' (54%), and 'more areas in my home to play' (38%)- which would include the outdoor space.

When considering the school setting, parents were asked how strongly they feel about the statement 'My child's school which includes: facilities, recess opportunities, intramurals, physical education classes, safe playgrounds, extracurricular programs, etc., is helping my child to develop

physical literacy.' Responses indicated that 38% of parents strongly agreed, and 48% agreed with the above statement. Parents were then asked what supports were needed to assist in the development of physical literacy in their children within the school environment. For this questions, response options included: Mandatory daily physical education from Kindergarten to grade 12, greater administrative (school and school division) support for physical education, greater administrative support (school and school division) for physical activity during the school day, more opportunities to be physically active during the school day (before school, after school, recess, lunch), more opportunities for school sport participation (no cut policies, equal playing time), qualified coaches, and other. The main supports that parents suggested would help in their child's physical literacy development in the school settings included 'mandatory daily physical education from kindergarten to grade 12' (66%), 'more opportunities to be physically active during the school day' (61%), and 'greater administrative support for physical activity during the school day' (60%).

Lastly, in the community setting, parents were asked how strongly they feel about the statement 'I believe my community, which includes playgrounds, parks, green spaces, community sports and activities, etc., is helping my child to develop physical literacy.' Responses indicated that 25% of parents strongly agreed, and 53% agreed with the statement regarding their child's physical literacy and community opportunities. Parents were then asked what supports were needed to assist in the development of physical literacy in their children within their community. Response options for this question included: qualified coaches and instructors, more opportunities to be active, improved outdoor facilities, improved indoor facilities, reduced cost for participation, and other. The main supports suggested by parents to enhance community physical literacy development included 'reduced costs for participation' (97%), 'improved indoor facilities' (77%), and 'more opportunities to be active' (76%).

Discussion

To our knowledge, there currently exists little evidence on parental perspectives related to physical literacy. As such, the aim of this study was to gain a better understanding of the perspectives of Canadian parents with respect to physical literacy development responsibilities and opportunities for their children. Overall, this study found that the majority of participants (80%) had never heard of the concept of physical literacy. Despite the low initial understanding of the concept, after the term was defined, 50% of parents strongly agreed, and 41% of parents agreed that their child or children were physically literate. Various physical literacy measurement tools indicate that Canadian children are not meeting the minimum level recommended by their respective assessment tools (e.g., PLAY tools; Canadian Assessment of Physical Literacy, CAPL). In studies using PLAY fun (Sport for Life, 2013), children were consistently reported to have not yet reached the acquired stage (equal to above 50/100) for average motor competence, indicating opportunities for children's improvement in this component (Bremer et al., 2020; Cairney et al., 2018). Similarly, in the Canadian Assessment of Physical Literacy (CAPL) (Longmuir et al., 2015) Canadian children were reported to have on average a 'progressing' level of overall physical literacy, which is lower than the minimum level recommended in the CAPL protocol (Tremblay et al., 2018). It is plausible that parents over reported their children's physical literacy levels, as previous literature has shown that parents are also more prone to report higher levels of physical activity (Corder et al., 2012; Kesten et al., 2015) and more socially desirable responses (De Bourdeaudhuij & Van Oost, 2000). Our findings align with literature examining parents'

perceptions of their child's physical activity behaviours, where a high percentage of parents inaccurately classified their children, on more than one occasion, as active when the child was in fact inactive (Corder et al., 2012; Kesten et al., 2015). Therefore, parents' perceptions of their child's physical literacy and their child's actual level of overall physical literacy might differ. More evidence is required to determine the relationship between parents' perceptions of their child's physical literacy level and objective measures of physical literacy. Parent's perception of their child's physical literacy is important as parents who believe their children are physically literate will not view this as a concern and therefore will not take action to address or advocate for the development of physical literacy.

Parents in our study also believed they had the primary responsibility for developing their child's physical literacy (88%). An acknowledgement from parents of their role in physical literacy development is a valuable finding to consider when planning for interventions to enhance the physical literacy of children. Similar findings are suggested in physical activity literature, where parents feel they bear the primary responsibility for their child's physical activity levels (Corder et al., 2012; Giles-Corti et al., 2009). For example, Lindqvist et al. (2015) described parents' experiences being part of an intervention aimed to improve physical activity behaviours among adolescents. Findings indicated that parents played an integral role in the physical activity behaviours of their children. Authors suggested that interventions aimed at improving the physical activity behaviours of young people should include actions to stimulate participation of parents (Lindqvist et al., 2015). In addition to acknowledging their role in physical literacy development, our study also provided parents with the opportunity to highlight important factors in this development, which included, opportunities to develop movement skills, playing sports, instilling confidence, and finding the appropriate motivation. Despite the lack of understanding of physical literacy, based on parents' selection of critical factors in physical literacy development parents demonstrated an understanding of physical literacy from a practical lens. This may suggest that for parents, a definitional understanding is not required for valuing the development of physical literacy.

Parents suggested several supports to help develop physical literacy in their child(ren). These ranged from decreasing costs of physical activities within their community, more time in the home environment with their children as a means to support PL development, mandatory daily physical education from kindergarten to grade 12, and greater personal knowledge about how to further develop physical literacy. Although there are a large variety of suggestions, this information provides an opportunity for researchers and practitioners to take action in areas where parents report a lack of support. For example, in most Canadian provinces physical education becomes an optional subject in grade 9 or 10. Parents (66%) suggested that mandatory daily physical education from kindergarten to grade 12 would help in their child's physical literacy development in the school settings. Many provincial physical education curriculums in Canada aim to develop physical literacy in children (Edwards et al., 2018), however the instruction of physical education is often viewed by educators and administrators as less important than instruction in more "academic" subjects (Kohl & Cook, 2013). Our findings show that the parents who participated in this study, value physical education and believe that providing mandatory daily physical education classes in all grades would be valuable for their child(ren)'s physical literacy development. This finding is important as parents can influence policy and practice in schools, and perhaps it is time to seek out their support for future physical education programs enhancements. Strategies to encourage parents to advocate for the instruction of physical education to their

children daily may result in more support for physical education and, in turn, increase opportunities for children to develop their physical literacy at school.

The acknowledgement among parents that they are primarily responsible for their children's physical literacy development highlights an opportunity to encourage a shared responsibility approach to physical literacy development of children. A shared responsibility approach would ideally encourage parents, schools (e.g., teachers), and community leaders to work together in enhancing physical literacy, or become involved at different stages. There exist various successful strategies in the enhancement of physical literacy in the school and community setting (Kriellaars et al., 2019), however, based on the results of this study, parents are an integral piece that have been less targeted in physical literacy intervention work (Lane et al., 2022) and that perhaps combining efforts in various settings (e.g., home, school, community) would enhance physical literacy development. By understanding the variety of environments that children and youth interact with, there is the potential for many individuals to influence the development of physical literacy within these environments, such as teachers, coaches, community members, urban planners, peers, and parents (Sport for Life, 2019). It is clear that the time has come to engage multiple sectors in the development of physical literacy; the findings from our study indicate that parents understand the importance of physical literacy development opportunities and are ready to play a role in the development of physical literacy in their children. In alignment with this perspective, the 2020 ParticipACTION report card supports multiple sector influence on physical activity with a specific focus on parental influence on children's' physical activity behaviours, but also identified that many other groups can influence children's' behaviours including school, child care and community (ParticipACTION, 2020). Given the important role that parents play in the health enhancing behaviours of their children (e.g., physical activity), and the previously established connections between physical literacy, health, and physical activity, parents may be critical to future physical literacy development. An approach centered more on a shared responsibility approach may make the creation of more physical literacy enriched opportunities more achievable among parents and the broader community of movement pedagogues.

Limitations

Currently, limited research has focused on parents' perceptions of physical literacy. This study has begun to fill this gap by asking for parents' thoughts around physical literacy development responsibilities and supports necessary. However, limitations of this research are present. The sample is representative of one Canadian province. Due to this limited size and restricted geographical location, along with the mode of survey delivery (by telephone in English only), generalizability of findings to parents in other regions may be limited; however, this study did have a strong representation of Indigenous people living in the province. Studies in other geographical contexts and regions with different socioeconomic and cultural conditions might generate different results. Although selected parents were considered representative and a random sample of the population of one Canadian province, parent participation was voluntary. As such, it is important to acknowledge the possibility that parents interested in physical activity volunteered for the study. Furthermore, in some questions, respondents were provided with limited options of responses. Lastly, we did not gather information on the specific ages of the parents' children, rather an age range of 0-16. Parents of school-aged children (e.g., 5-16 years) may have a greater awareness and understanding of physical literacy based on communication from, and

experiences within, the school. Nevertheless, this study offers a broad understanding of parents' knowledge and perceived role in their child's development of physical literacy.

Conclusion and Future Recommendations

The findings of this research provide a broad overview of parents' perceptions of physical literacy in one Western Canadian province. These findings demonstrate that there is an opportunity to enhance parental knowledge and understanding of physical literacy. Gaining an understanding of physical literacy may require educational opportunities for parents and/or families, but has the potential to impact children's physical literacy development and greater alignment between parent's perceptions and their children's actual physical literacy. It is critical that parents have an accurate view of their child(ren)'s physical literacy development, as advocating efforts are dependent on perceived need. In other words, if parents believe their child(ren) are physically literate, no action will be sought. Whereas, if parents perceive their child(ren) needs further support in the development of physical literacy they can advocate in multiple environments (e.g., school and community) and prioritize physical literacy development in the home. Given that parents see themselves as having the primary responsibility for physical literacy development of their child(ren), this is an important area of focus in the attempt to create lifelong movers. Parental involvement in future physical literacy interventions may be a critical piece to a feasible and successful intervention.

Our findings indicated that a high percentage of parents perceived their children to be physically literate. As such, it could be likely that parents have over-reported levels of physical literacy. Future studies could explore perceived physical literacy (from the perception of the parent and child) and actual physical literacy (of child), which could further our understanding on appropriate educational and interventional strategies depending on these results. It should be highlighted that parents owned the responsibility of developing physical literacy in their children. Future work might expand on parents' understanding of how they perceive they develop physical literacy. These perceptions on the ways in which parents believe physical literacy is developed would deepen our understanding of parental perceptions in regards to children's physical literacy development. Parents also viewed schools as a setting to support physical literacy development. As parents play important roles in the school community, this may highlight an opportunity for parents and teachers to work together in the development of physical literacy.

The responsibility of physical literacy development should lie with various groups (e.g., parents, schools, recreation, etc.), as these are many of the environments, children and youth move over the course of a day. This future direction of a multi-context approach would also inform the role that home, school and community environments might play in an overall physical literacy development strategy. In addition, future research could explore parent's knowledge of physical literacy across children's age ranges. This information could be used to provide a more in-depth understanding of parent's knowledge based on children's age and better inform age-specific intervention strategies. Further, parents see the school as playing an integral role in the development of physical literacy and efforts should be made to include parents in advocacy efforts seeking support for physical education programs. This may be particularly important as we emerge from a pandemic and educational decision makers may feel pressure to focus on subjects and experiences typically valued more than physical education.

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