Preschoolers’ Physical Activity Behaviours
Parents’ Perspectives

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ABSTRACT

Objectives: To understand parents’ perspectives of their preschoolers’ physical activity behaviours.

Methods: A maximum variation sample of 71 parents explored their preschoolers’ physical activity behaviours through 10 semi-structured focus group discussions.

Results: Parents perceived Canada’s Physical Activity Guidelines for Children as inadequate; that their preschoolers get and need more than 30-90 minutes of activity daily; and that physical activity habits must be established during the preschool years. Nine barriers against and facilitators toward adequate physical activity were proposed: child’s age, weather, daycare, siblings, finances, time, society and safety, parents’ impact, and child’s activity preferences.

Discussion: The need for education and interventions that address current barriers are essential for establishing physical activity as a lifestyle behaviour during early childhood and, consequently, helping to prevent both childhood and adulthood obesity.

MeSH terms: Children; preschool; motor activity; obesity; primary prevention

La traduction du résumé se trouve à la fin de l'article.

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ing parents’ perspectives is essential to the successful development of a primary prevention intervention to combat childhood obesity and promote healthy bodyweight.

The current study was part of a three-pronged qualitative study to assess parents’ perspectives of their preschoolers’ physical activity and screen-viewing behaviours, and programming suggestions to encourage appropriate levels of each. This paper presents the physical activity component of the study.

**METHODS**

Ten semi-structured focus-group interviews, with 4-11 people in each, were conducted with parents of preschool-aged children (2.5 to 5 years). Participants were asked about their children’s physical activity behaviours. The qualitative method of focus groups was chosen to assess parents’ perspectives before developing an intervention. The Canadian Institutes for Health Research funded this project and ethical approval was obtained through The University of Western Ontario.

Parents of preschoolers were recruited through flyers, information sheets and site visits at community locations (five playgroups, three daycare centres, one resource centre and one workplace). Two of the 10 sites were located in rural areas. Sites from different geographic areas within London and Middlesex County were selected to provide a maximum-variation sample. Homogeneous participants were recruited for each focus group and an overall sample of parents with diverse socio-economic status (education level, income, employment status) were recruited.

To facilitate focus-group attendance, childcare, bus tickets and a meal for parents and children were provided. Focus groups were also planned at times when parents would normally be at the selected location.

All focus-group meetings were facilitated by one of two experienced moderators and lasted for approximately 1-1.5 hours. In one focus group only, many participants knew the moderator; however, this seemed to have minimal impact on their participation. Focus groups were audio-recorded and transcribed verbatim. Saturation was reached by the tenth focus group.

Data collection and analysis took place simultaneously using a combination of the editing and template organizing styles outlined by Miller and Crabtree. A minimum of two researchers independently conducted inductive content analysis on each transcript and compared their findings. NVivo software was utilized to code and categorize emerging themes. Although there was a risk of introducing bias into a study because only one form of data collection was used, a number of strategies were employed to ensure the trustworthiness of the findings (Table I).

**RESULTS**

**Participants**

Seventy-one people participated in this study, most of whom were female (68). Participants ranged in age from 21 to 63, with approximately 60% in their 30s. Although all recruitment materials specifically asked for parents, three grandparents significantly involved in the guardianship of their grandchildren participated. Our recruitment strategy appeared to offer relatively homogeneous focus groups, while providing an overall mix of participants with different income, education and employment backgrounds (Table II). Areas lacking in diversity were gender and ethnicity.

**Perspectives on early habits**

Parents stressed the importance of encouraging healthy behaviours early in their children’s lives and explained that establishing physical activity during the preschool-aged years would facilitate the development of a long-term healthy lifestyle and an alternative to getting into trouble. Table III provides some illustrative comments.

**Amount and types of physical activity**

Parents reported that their preschoolers engaged in anywhere from 1 to 10 hours of daily physical activity, depending on the weather, with the majority hovering around 3 to 4 hours per day. The types of physical activity in which preschoolers were involved varied; they included everything from organized sports to chasing squirrels at the park. Many preschoolers were involved in both organized and

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**TABLE I**

Measures to Ensure Data Trustworthiness

<table>
<thead>
<tr>
<th>Credibility</th>
<th>Member checking was done between questions and at the end of each focus group to ensure the researchers correctly understood the responses from participants. The moderator provided her perception of participants’ responses prior to moving on to the next question, and the assistant moderator summarized participant responses at the end of each focus group to ensure accuracy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependability</td>
<td>Following each focus group, four of the five research team members met to debrief and summarize each focus group, and detailed minutes were recorded. Also any biases were voiced, recorded and considered to ensure that the analyses were not influenced by researcher bias. The main position that was addressed was the research team’s perception that children’s physical activity levels and parental involvement would vary based on socio-economic status. Detailed information was documented for the purpose of an audit trail.</td>
</tr>
<tr>
<td>Confirmability</td>
<td>Inductive content analysis was performed independently and simultaneously by two researchers, who later met to compare their analyses. Data were examined for similarities and differences across the interviews and emerging themes were identified. A summary of the analysis was prepared and discussed. The fifth team member independently reviewed all 10 transcripts and engaged in peer-debriefing with the other team members.</td>
</tr>
<tr>
<td>Transferability</td>
<td>The research process has been documented in detail, thus enabling potentially interested parties to determine whether our results are transferable to other settings.</td>
</tr>
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</table>

**TABLE II**

Participant Demographics (n=71)

<table>
<thead>
<tr>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>Participant age (years)</td>
</tr>
<tr>
<td>20-29</td>
</tr>
<tr>
<td>30-39</td>
</tr>
<tr>
<td>40-49</td>
</tr>
<tr>
<td>50-59</td>
</tr>
<tr>
<td>60+</td>
</tr>
<tr>
<td>Annual family income</td>
</tr>
<tr>
<td>$0-$24,999</td>
</tr>
<tr>
<td>$25,000-$59,999</td>
</tr>
<tr>
<td>$60,000-$99,999</td>
</tr>
<tr>
<td>&gt;$100,000</td>
</tr>
<tr>
<td>Highest education levels</td>
</tr>
<tr>
<td>Some or completed high school</td>
</tr>
<tr>
<td>Some or completed college</td>
</tr>
<tr>
<td>Some or completed university</td>
</tr>
<tr>
<td>Graduate degree</td>
</tr>
<tr>
<td>Current employment</td>
</tr>
<tr>
<td>Part time</td>
</tr>
<tr>
<td>Full time</td>
</tr>
<tr>
<td>No paid employment</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>Caucasian</td>
</tr>
<tr>
<td>Southeast Asian</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

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"Measures to Ensure Data Trustworthiness"
Other parents indicated that as long as
more home-based activities. Some parents
activities made it more desirable to create
and cost necessary to get their kids to those
rural parents felt that the extra time, effort
for making sure activities took place. Some
Table IV. Some felt structure was helpful
structured physical activity, as reflected in

Structured and Unstructured Activities

“...to skate. I never did it because I didn’t have a specific time I was going to do it. This year
signed her up for skating and we both go and do it and it’s more structured and that’s been help-
ful.”

“Some of the other issues though with organized activities like that is cost. I mean none of them are
inexpensive. I live in a rural area so I would have to go to a city to access a lot of them and cost is
simply prohibitive. Then you’ve got the time on top of it.”

“So you have the organized sport but you can also form an informal play group with them as well.
Teaches them rules and how to get along with others, whatever games they’re playing and teaches
them how to work together as a team, perhaps. The downside is if you have your kids sched-
uled most days of the week then you’re right, they don’t have the play time just to be kids. They
don’t have the down time that they need.”

“I think another issue with organized sport is the competitiveness of it... I don’t think the compe-
tition at that age is really appropriate and it really affects kids’ self-esteem...”

TABLE V

Responses to Guidelines

“So for preschoolers I don’t think that would even apply. I think they need a lot more than that.”

“I just think it’s a very sad commentary that the ... current guide says only 30 minutes a day and
they’re increasing it to 90 ... . It’s very sad if there are children out there who are only getting 30
minutes of active play a day and I’m sure there probably are.”

home-based activities. The home-based
activities included bike riding, dancing,
chasing squirrels or the family dog, tobog-
ganing, roller blading, jumping and skipp-
ing, walking, playing hide and seek,
swimming, running on the treadmill, hik-
ing, duck-feeding, collecting sticks, clim-
ing, playing basketball and baseball,
wrrestling, playing tag, swinging, and jump-
ing on the trampoline. The organized
activities included ice hockey, soccer, skat-
ing lessons, ‘Kindermusic’, floor hockey,
gymnastics, basketball, baseball, and power
skating.

Structured and unstructured activities
Parents had differing views on the value of
structured physical activity, as reflected in
Table IV. Some felt structure was helpful
for making sure activities took place. Some
rural parents felt that the extra time, effort
and cost necessary to get their kids to those
activities made it more desirable to create
more home-based activities. Some parents
suggested that organized activities (e.g.,
hockey) fostered inappropriate competi-
tiveness and would detract from the quali-
ty of their children’s or their families’ lives.
Other parents indicated that as long as
preschoolers were active, it really did not
matter whether it was organized or not,
and they believed that some parents may
have lost sight of that.

Responses to Guidelines
Canada’s Physical Activity Guidelines for
Children (CPAG-C)23 and specific exam-
pl es of moderate and vigorous activity
(e.g., swimming, running, riding a bike)
were presented to parents. Most suggested
the guidelines were insufficient and explained that 30-90 minutes of physical
activity for their preschooler was easy. Few
parents shared concerns about meeting the
guidelines (see Table V).

Barriers and facilitators to preschool-
ers’ physical activity
The reported barriers and facilitators to
appropriate physical activity among
preschoolers included: the preschoolers’
age; the season/weather; daycare providers;
the presence or absence of siblings; the
financial costs of participating; time;
scheduling; society and safety issues; par-
ents’ impact; and the child’s activity prefer-
ces. Table VI provides illustrative com-
ments.

Age
Some parents indicated that the age of their
preschoolers was a barrier to their physical
activity opportunities. Because some physi-
cal activity organizations required that all
participants be toilet trained, a number of
preschoolers were excluded. Also, the
paucity of organized activities for
preschool-aged children meant there was
little from which to choose.

Season and weather
The season and weather impacted preschool-
ers’ physical activity. The warmer seasons
were more conducive to physical activity,
and the colder seasons posed greater chal-
enges, although in some cases the preschool-
ers were willing to go outside and play but
parents were not. For a few parents, getting
outside and being active was too important
to let the weather have any impact.

Daycare
Parents reported consistently that having their
preschoolers enrolled in some form of daycare
program facilitated their children’s physical
activity. They felt that licensed daycare cen-
tres consistently offered higher quality, more
structured, and routine physical activity expe-
riences than home daycare settings.

Siblings
For some parents, having more than one
child posed unique challenges to facilitat-
ing their preschoolers’ physical activity,
especially when trying to participate in
structured programs. For others, multiple
children made physical activity much easi-
er because they took pressure off parents
by providing other kids with whom the
preschoolers could be active.

Financial costs
Although parents recognized the value of
physical activity, the financial costs associ-
ated with structured or organized activities
were highlighted as a barrier, especially for
single-income families.

Time
Insufficient time, especially for working
parents, was a barrier to preschoolers get-
ing regular physical activity.

Society and safety issues
The current society, described by partici-
pants as busier, less safe, and with more
alternatives than when they were children, was identified as a barrier to preschoolers’ physical activity. None of the focus-group participants suggested that today’s society facilitated physical activity better than in the past. Safety concerns, ranging from unsafe driving to abductions, were brought forward by many participants. There was a general feeling that because of safety concerns, children have less freedom to play outdoors today than in the past.

Parents’ impact
Parents’ creativity, perspectives on organized sport, personal activity habits and preferences, and organizational abilities reportedly all contributed to either supporting or detracting from preschoolers’ physical activity habits. Some parents felt that as long as they supported their children’s physical activity, they were not required to participate with their preschoolers, whereas others felt that being a physically active role model was critical.

Child’s activity preferences
The activities in which preschoolers preferred to participate had a large impact on their parents’ abilities to facilitate regular physical activity. For example, for children who enjoyed more sedentary activities, it was a greater challenge to get them physically active compared to those children who loved physical activity.

DISCUSSION
Parents in this study were passionate about their preschoolers’ health, including their physical activity behaviors. Although the Canadian guidelines25 were not tailored for preschoolers, they were chosen for this study because they were the clearest health-related physical activity guidelines available. Most parents reported that their preschoolers met and exceeded the guidelines. However, the accuracy of parents’ reports are of concern. Although Burdette et al. found that parental-report measures provide an accurate reflection of preschoolers’ actual physical activity levels,24 Sallis et al. suggested that parents tend to report that their preschoolers are continually active, even though heart rate recordings indicate that two thirds are insufficiently active.25 Previous research suggests that young children lead insufficiently active lifestyles.15 Still, it is possible that the parents in this study had very active children, given their self-reported characterization of being “keen” parents. Due to the nature of the sampling method utilized, the self-selected parents in the current study are not representative of parents of preschoolers.

### TABLE VI
Barriers and Facilitators to Preschools’ Physical Activity

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>“I find a lot of stuff in the [activity centre] … will say your child has to be fully potty trained. So like it might be only an hour or two hours so that’s the big deal of having a child potty-trained?”…“I find there’s not enough things for that age group….”</td>
</tr>
<tr>
<td>Season and Weather</td>
<td>“I think climate really plays a factor in our abilities. I know we’re much more active in the summer-time and the spring and fall and in the winter it’s not as easy.” “During the summer their activity behaviours are great. I love how active they are and how they want to be outside doing things but in the winter …[]it’s cold and I don’t want to go outside and play with them anymore.”</td>
</tr>
<tr>
<td>Daycare</td>
<td>“It’s really important that I get my kids out. I try at least every day to do that, to get some outside air and activity because that’s important to me too, like I get cabin fever so fast.”</td>
</tr>
<tr>
<td>Siblings</td>
<td>“It’s really hard when you’ve got one at home and one big person and they think that you’re the cruise director all day. I agree. On weekends the three of them will play even though there’s a wide range of age. They will just take off and find something that the three of them will play and I never hear from them unless I want to do something with them and then we’re all together, but the three of them will entertain each other quite well. But the minute the older two are gone, it’s ‘What are we doing now Mom?’” “I’m having a problem because both my kids love swimming. [My daughter’s session] will be at one time and [my son’s] is a half-hour later. Well do you think I can hold him for half an hour without him screaming and kicking because she’s in the pool and we’re sitting there watching? No, so I have to have both times so we’re both in the pool at the same time so there’s no fighting.”</td>
</tr>
<tr>
<td>Financial Costs</td>
<td>“…being a single parent, I don’t have the funds to pay for uniforms and fees and all that stuff.”</td>
</tr>
<tr>
<td>Time</td>
<td>“…I’ve just started working full-time and it’s a long commute and I’m away from the home for such a long period of the day that [I] do more with the kids on the weekend. Yeah, okay then between the laundry and the cleaning and everything else, especially at this time of year [December] when there’s so much extra stuff to do that I can’t even begin to think of doing some organized physical activity with the kids.”</td>
</tr>
<tr>
<td>Society and Safety</td>
<td>“I always think of the toys the kids have today… there are many more things that will also keep them inside more so than before. Where if she didn’t have that then she’d be outside because there’d be nothing to do inside. I think today they are so focused on in the mind, like you need to sit down and you need to learn. So everything they’re inventing are not things that you take outside and do.”</td>
</tr>
<tr>
<td>Parents’ Impact</td>
<td>“We try to find ways to be physically active other ways, like for example, maybe parking at the other end of the mall and when you go in one door, go out the wrong door and have to walk all the way around as a family and skip and hop and try to make it fun. So we try to be creative in ways to increase the activity to help her out so that she does get a little bit extra and to make it fun and a family sort of thing.” “…”what the child sees he is going to do moreo….” Like if parents are active, kids are going to be active. And if parents aren’t the kids aren’t either.”</td>
</tr>
<tr>
<td>Child’s Activity Preferences</td>
<td>“She’s the more the reader, more the crafty type…you find her a lot of times just sitting down in the sandbox trying to build something but a lot of times we have to get her moving and we go for walks to try to get her moving.” “Mine [children’s activity levels] vary actually and I think that is to do with their personality. So my older one is a lot more physical, so he needs to run around and let off steam…. For my 3-year old, who is a girl…. [she] never stops from the time she gets up. She hasn’t napped since she was a year and a half.”</td>
</tr>
</tbody>
</table>
Parents reported that their activity behaviours and preferences impacted their preschoolers; if parents enjoyed physical activity, they passed that enjoyment on to their preschoolers, and the reverse was equally true. Parents and caregivers largely influence the behaviours of preschoolers. Clearly then, parents can have a tremendous impact on preventing obesity.25-27 Finding out what facilitates and hinders parents’ ability to provide their preschoolers with appropriate physical activity is essential for understanding how best to address these barriers and facilitators.

Previous research corroborates our findings regarding barriers and facilitators to preschoolers’ physical activity.26,28-31 Namely, we determined that time, resources and safety concerns, along with daycare providers and the weather, were among the components that either facilitate or hinder activity levels.

Parents in this study identified physical activity as critical for the emotional and physical health of their preschoolers, including the prevention of obesity. Parents’ perceptions of their preschoolers’ activity behaviours, including barriers and facilitators to appropriate levels, are essential ingredients for the next step of this project – identifying an efficacious program to prevent childhood obesity in preschoolers. Although effective obesity treatment programs are much needed, preventing obesity before it starts has even more potential for positively impacting the lives of children who need not live with the psychological and physical strain of being obese.

In conclusion, education and interventions addressing current barriers are essential for establishing physically active lifestyles during early childhood, and consequently, helping to prevent both childhood and adulthood obesity. Furthermore, objective measures to quantitatively determine the prevalence of physical activity among Canadian preschoolers would be valuable for understanding the extent of the inactivity problem among this age group.

REFERENCES

31. Received: September 8, 2004
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