Splashpads, Swings, and Shade
Parents’ Preferences for Neighbourhood Parks

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ABSTRACT

Background: Physical activity is a modifiable behaviour that can help curtail the increasing worldwide problem of childhood obesity. Appropriate recreational opportunities, including neighbourhood parks, are particularly important for promoting physical activity among children. Because children’s use of parks is mainly under the influence of their parents, understanding parents’ preferences is essential for creating the most inviting and usable park space to facilitate children’s physical activity.

Methods: Eighty-two intercept interviews were conducted with a heterogeneous sample of parents/guardians watching their children at neighbourhood parks in London, Ontario. Parents/guardians were asked questions about how often they frequent the park, whether it is the closest to their residence, and their likes/dislikes for the park. Strategies to ensure trustworthiness of the data were employed.

Results: Interviewees attended their park of choice between 1-7 times per week with the average being 2.5 times per week. Only 49% of respondents frequented the park closest to their starting destination (home or daycare facility), and the majority travelled more than 4 km to get to the park. For those who chose to travel a significant distance to attend their park of choice, park location was not as important as the amenities they desired. Parents’ main reasons for choosing parks were: water attractions, shade, swings, and cleanliness.

Conclusions: The current study provides useful insights on park use with potentially important implications for increasing physical activity among children. Incorporating parents’ preferences into strategies for creating or modifying city parks will help to ensure that limited public resources are being targeted most effectively in support of children’s physical activity.

MeSH terms: Motor activity; recreation; environmental; child

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

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Children overweight and obesity are an international epidemic.1,2 In Canada, close to one third of children are currently either overweight or obese and rates are rising in children as young as 2 years of age.3,5 The increased prevalence of childhood obesity has been linked to the concurrent rise of children’s physical health problems, such as type 2 diabetes, hypertension, and asthma,6-9 as well as social and psychological afflictions including discrimination, behavioural problems, negative self-esteem, anxiety, and depression.9,11 In addition to the physical and psychosocial costs associated with being overweight or obese, caring for Canadians’ obesity-related illnesses is associated with an annual expenditure of approximately two billion dollars.12 Disturbingly, obesity-related problems are likely to continue to climb. For instance, between 1994/1995 and 2002/2003, one third of normal-weight adults shifted into the overweight category, and about one quarter of overweight adults became obese.13 Furthermore, the Canadian Paediatric Society (2002) asserts that up to 70% of obese children will grow up to become obese adults.14 If effective interventions are not found and Canadians continue on the current weight-related trajectory, by the year 2021 approximately 70% of males and nearly 50% of females will be either overweight or obese.15

While health researchers have traditionally focused on individual-level factors when trying to understand and combat obesity (e.g., genetics, lifestyle choices), recent work proposes that the physical environment also plays an important role in encouraging obesogenic or leptogentic behaviours (i.e., factors that contribute to fatness or leanness).16-23 The physical environment represents the setting for all human activity and encompasses both the natural environment (e.g., air, water, dirt, grass, trees) and the built environment. Included within the built environment are all of the physical features of the landscape that are created or modified by people, such as homes, workplaces, streets, sidewalks, and shopping areas, as well as human-made recreation spaces such as pools, playing fields, and swing sets.24,25 The local neighbourhood environment can be an important influence on one’s physical, social, and mental health25-27 and the World Health Organization recently underscored the importance of creating supportive environ-
ments to decrease obesity and promote healthy bodyweights. While much of the research considering the health impacts of the physical environment has focused on adults, the World Health Organization has stressed that children’s physical and social environments are significant determinants of their overall health and well-being.

Although the study of the influence of the built environment on residents’ health is in its infancy, a substantial body of research confirms the relationship between community design and residents’ participation in physical activity. In addition to the vast benefits associated with being active, such as improvements in aerobic fitness, blood lipids, blood pressure, and psychological health, the contribution of physical inactivity toward the rise in childhood obesity has been well established. Unfortunately, more than 50% of Canadian children aged 5-17 are not active enough to achieve physical activity-related health benefits.

Exploring access of favourable recreational opportunities, including neighbourhood parks, is vital for understanding and promoting physical activity among children. Because children’s use of parks is mainly guided by their parents, understanding parents’ preferences is essential for creating the most inviting and usable park space to facilitate children’s physical activity. Therefore, the purpose of this study was to assess parents’ preferences regarding city parks, using London, Ontario as a case study.

METHODS

This qualitative exploratory descriptive study targeted a heterogeneous sample of parents of children at each of the 235 public parks in the City of London, Ontario (Canada) during July and August 2005 and June and July 2006. Intercept interviews were used to ‘catch’ parents while they were using a park. This ‘in the field’ method of data collection allowed for a more accurate reflection of the park features about which parents could speak, than a survey conducted ‘off site’. Ethical approval was obtained through the Office of Research Ethics at the University of Western Ontario.

All city parks were mapped using a Geographic Information System (GIS) (Figure 1) and the physical characteristics were appraised to determine the overall accessibility and quality of parks relative to neighbourhood socio-economic status (findings presented elsewhere, see Gilliland et al.). Parent interviews, lasting 5 to 10 minutes, were then conducted (between the hours of 9:00am - 8:00pm) in all parks that were being used by children. A semi-structured interview guide was used by two trained and experienced qualitative interviewers. Due to the emerging nature of qualitative research, the interview questions continued to evolve during the first five interviews. Parents were asked for the ages of their children, the frequency with which they use the parks, and their home postal code. Parents were also asked how often they use the park, if it is the closest park to their home, who typically chooses the park (parent or child), what they liked/disliked about the park, and what improvements they would make. The interviewers probed more deeply into topics that parents identified as particularly important. One member of the research team recorded direct quotations of parents and made field notes while the other asked the questions. The postal codes of participants were mapped in the GIS and used to calculate the distance from participants’ homes to the park in which they were interviewed.

Data saturation was reached by the 40th interview; however, 42 additional interviews were conducted to confirm saturation and to obtain data from as many parents as possible throughout the city. All field notes and direct quotations were amalgamated and two team members independently conducted inductive content analysis and compared findings. NVivo software was utilized to code and categorize emerging themes (QSR International). As encouraged by Guba and Lincoln, a number of strategies were utilized to ensure data trustworthiness, as outlined in Table I.

RESULTS

All 235 parks in the city were visited initially between the hours of 9:00am - 4:00pm, however only 29 of them (12%) had people in them at the time of the visit.
Parents' Preferences for Neighbourhood Parks

Although distance travelled ranged from 20 metres (across a street) to over 10 kilometres. Only 49% of respondents frequented the park closest to their starting point, and the majority travelled more than 4 km to get to the park. In 65% of the cases, guardians'/parents’ preferences alone determined which park to visit and in 21% of the cases it was the guardians/parents and children together who decided which park to attend. The vast majority of interviewees attended their park of choice between 1-7 times per week with the average being 2.5 times per week. Four participants reported that the interview day coincided with their first time at the park, and two participants visited the park less than once every two weeks.

Common to all interviews, parents explained that visiting parks provided an “outing” or “event” for both themselves and their children, as well as an opportunity for their kids to get outside and be active. One interviewee had spoken with her children about the importance of physical activity that day and, therefore, they used the park because it allowed them to be “outside, getting physical activity”. Many parents were quite purposeful in their reason for selecting the park and their preferences helped to provide an understanding as to why they chose the parks they did, as outlined below (see Table II for illustrative quotes).

### Location
For those interviewees who attended parks closest to their starting destination, they did so because “location really comes first”. For those who chose to travel a greater distance to attend their park of choice, park location was not as important as the amenities they desired.

### Water feature
The most often cited reason for choosing a park further away than their closest option was to use a water feature (i.e., splash pad or wading pool). The majority of the parks that were being used at the time of the interviews offered one of these features. The only concern participants expressed about the water facilities, and specifically wading pools which require lifeguards, were the hours of operation; interviewees wanted longer hours that included evening times and a longer season (i.e., June-September rather than July to mid-August).

### Shade
Parks that provided shade for protection from the sun were much appreciated by interviewees, and others explained the lack of shade as a main deterrent to park use during the heat of the day.

### Swings
A number of participants caring for multiple children explained that they travelled to parks with sufficient numbers of swings because that was their children’s favourite activity, and having more than a couple of swings helped to prevent fighting among the kids. Overwhelmingly, parents requested more swings in the parks.

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TABLE I

Measures Taken to Ensure Data Trustworthiness

<table>
<thead>
<tr>
<th>Credibility</th>
<th>Dependability</th>
<th>Confirmability</th>
<th>Transferability</th>
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<tr>
<td>Member checking was done during the intercept interviews; any unclear responses were paraphrased back to respondents to ensure accurate interpretations.</td>
<td>Detailed information about the weather conditions and park conditions were recorded, and the research team met to discuss and record any related biases to ensure that the analyses were not influenced by researcher bias.</td>
<td>Inductive content analysis was performed independently by two researchers. Upon completion of independent coding, the two researchers then met to compare their analysis. Data were examined for similarities and differences across the interviews and emerging themes were identified. A summary of the analysis was prepared and discussed.</td>
<td>The research process, environmental conditions, and participant gender have been documented, thus enabling potentially interested parties the ability to determine whether our results are transferable to other people in other settings.</td>
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TABLE II

Reasons for Travelling to Parks of Choice and Suggestions for Improvement

<table>
<thead>
<tr>
<th>Water Attractions</th>
<th>“We like the splashpad!”</th>
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<tr>
<td></td>
<td>“The main reason [we travel here] is the pool.”</td>
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<tr>
<td></td>
<td>“My son likes to come here [splashpad], he likes all the different water activities, I think it is a good idea because you don’t have to have a lifeguard standing by.”</td>
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<td>Shade</td>
<td>“…I like that this is a mature park with lots of big trees.”</td>
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<td></td>
<td>“The only thing we need here is shade, everything else is good.” And, another said, “I won’t come here during the heat of the day because there is no shade…we need to implement some sort of shade, even partially, over the pool.”</td>
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<tr>
<td></td>
<td>“[There needs to be] more shade, more trees because we’re always in the hot sun…that’s what makes our stay shorter.”</td>
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<tr>
<td>Swings</td>
<td>“I like that it [this park] has swings…swings are good, a lot of the parks don’t have swings.”</td>
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<td></td>
<td>“Swings are a must!”</td>
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<tr>
<td>Cleanliness</td>
<td>“[We come here] because it’s clean, I’ve seen the city guys come…it’s well cared for.”</td>
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<tr>
<td></td>
<td>“The problem with this park is that the bathrooms are nasty, rarely have soap…it’s cleaner to just squat somewhere.”</td>
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<td></td>
<td>“A clean park is important…at times we’ve found pee on the slide and broken glasses.”</td>
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<td></td>
<td>“[I like that] there are lots of garbage cans to keep it clean.”</td>
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<tr>
<td>Equipment</td>
<td>“The playset…that’s what draws the kids, that’s their focus.”</td>
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<td></td>
<td>“The equipment is right for his age.”</td>
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<tr>
<td></td>
<td>“I like that there is wood chips under the equipment…its not as dirty [compared to sand or pebbles].”</td>
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<tr>
<td>Lighting</td>
<td>“Lighting would help…we’ve found busted beer bottles and…used condoms.”</td>
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</tbody>
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Consequently, a representative sample of 50 uninhabited parks were revisited between the hours of 4:00 - 8:00pm and of these, 10 (20%) had children playing there accompanied by parents. In total, 82 interviews were conducted with mothers (56%), fathers (24%), grandparents (7%) and daycare providers (13%). The children of these guardians were between the ages of 1-13 years with 85% being age 7 or under. Only two potential interviewees declined participation. The map depicted in Figure 1 illustrates the distance between the participants’ starting point (home or daycare) and their chosen park. Participants travelled an average of 1 km to visit the park, although distance travelled ranged from 20 metres (across a street) to over 10 kilometres. Only 49% of respondents frequented the park closest to their starting point, and the majority travelled more than 4 km to get to the park. In 65% of the cases, guardians'/parents’ preferences alone determined which park to visit and in 21% of the cases it was the guardians/parents and children together who decided which park to attend. The vast majority of interviewees attended their park of choice between 1-7 times per week with the average being 2.5 times per week. Four participants reported that the interview day coincided with their first time at the park, and two participants visited the park less than once every two weeks.
Cleanliness
Many interviewees stressed the importance of park cleanliness inclusive of washroom facilities. Travelling to preferred parks was often done because of the parks’ clean bathroom facilities. A common complaint by parents who lacked the transportation necessary to take their children to more desirable parks focused on unsanitary bathroom facilities.

Equipment
Having age-appropriate equipment that offered variety and a focus for play was essential to most parents. The ground covering beneath the equipment was also important – parents preferred woodchips to sand or pebbles.

In addition to explaining why they travelled to parks farther away from their starting point, interviewees also provided numerous suggestions to make the city parks closest to their homes more appealing and therefore usable. The most common suggestions in addition to the ones mentioned above (i.e., adding water facilities, extending wading pool hours of operation, increasing shade and swings, and maintaining cleanliness) pertained to debris, lighting, and lunch facilities.

Lighting and other structures
Many interviewees identified the importance of additional lighting in the park areas in an effort to deter inappropriate behaviours during evening hours. They suggested sufficient lighting in the parks would help prevent the behaviours resulting in unsanitary and dangerous debris. Lastly, interviewees suggested the addition of structures that would facilitate having lunch at the park: water fountains, a pavilion, and more picnic tables.

DISCUSSION AND CONCLUSION
Children’s ability to play outdoors fosters their participation in physical activity.44-48 In fact, being outdoors is essential for children’s physical activity because this is where “free play and gross motor activity is most likely to take place”45. Recent research suggests that the presence or absence of neighbourhood recreational facilities, such as parks, impacts children’s levels of physical activity.49 Given that less than half of the participants in the current study frequented the park closest to their home, it seems that parents’ preferences regarding the amenities within the parks are particularly influential determinants of use. Interviewees in the current study visited the parks quite often (an average of 2.5 times per week) and they provided thoughtful insights as to why they frequented their preferred parks. Their preferences weighed very heavily on their decisions to frequent or not frequent a particular park. In the vast majority of cases (i.e., 86%), parents’/guardians’ preferences played a significant role in determining which park to visit, underscoring Sallis’ contention that understanding parents’ preferences is essential for creating inviting park atmospheres in support of children’s physical activity.39

The main amenities that appealed to parents/guardians were water facilities, sufficient shade, swings, and overall cleanliness. The amenities that would draw parents to parks closest to their homes included the foregoing factors, as well as added lighting to reduce vandals’ night-time behaviours, the removal of debris such as broken glass, and the addition of lunch facilities such as picnic areas.

Although the current study provides important information, there are some limitations that should be considered. First, this study did not reach people who were not using the parks. Therefore, we do not have information about what would make citizens who do not use the facilities, use them. Surprisingly, few parks in London were being frequented by people either during the day or evening. While some hosted sporting events during the evening, and others had children and youth not accompanied by a parent/guardian, most were empty of people. An alternative methodology, such as a telephone survey, would be required to further explore this finding. Another potential limitation of this study is that the figures used for distance between starting point and park of choice are not based on the actual route travelled by the respondents. Had the actual route been recorded and calculated, the number of meters travelled would have been different for most respondents. Because the shortest distance between two points is found using a direct line, or ‘as the crow flies’, the distance that interviewees actually travelled was likely longer than that calculated by the researchers; therefore, parents may have gone even further out of their way to attend their park of choice than is reflected in this study. Another limitation was our inability to request socio-economic information; because we approached parents in a public facility, their confidentiality could not be guaranteed (i.e., other parents/people were in the area and could overhear the conversation). Thus, questions of a sensitive nature, including those pertaining to income, education, family structure were not asked. A paper-version questionnaire may have been more effective for collecting this sensitive information, but we were not able to administer this type of tool because parents needed to be able to keep their eyes on their children while completing the interview.

Very few, if any, previous studies have documented parents’ preferences regarding neighbourhood parks. The current study provides insightful and important findings with potentially significant implications for helping increase physical activity among children and, consequently, for reducing the prevalence of overweight and obesity. The results of this study have significant implications for city planners and policy-makers, who are in the best position to integrate the necessary amenities into the planning of future parks, or strategies for upgrading current facilities. These public health officials must make decisions about allocating resources to support physical activity. Previous research has found that enhancing places for physical activity leads to a substantial increase in people’s participation in physical activity.49 In this case, incorporating parents’ preferences into park facilities will help to ensure that the limited resources that are available to fund city parks are being informed by community members’ preferences and are of most service in supporting children’s physical activity.

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RÉSUMÉ

Contexte : L’activité physique est un comportement modifiable qui pourrait mettre un frein au problème mondial de l’obésité de l’enfance. Des installations de loisirs appropriées, y compris des parcs de quartier, sont particulièrement importantes pour promouvoir l’activité physique chez les enfants. Comme ce sont surtout les parents qui déterminent la fréquentation des parcs par les enfants, il est essentiel de comprendre les préférences des parents afin de créer des parcs qui invitent les plus jeunes et les plus accueillants possibles et facilitent ainsi l’activité physique des enfants.

Méthode : Quatre-vingt deux entretiens sur place ont été menés auprès d’un échantillon hétérogène de parents et autres responsables qui surveillaient leurs enfants dans des parcs de quartier de Londres, en Ontario. Les parents et responsables ont répondu à des questions sur la fréquentation de leurs visiteurs par le parc, la distance entre le parc et leur domicile, et ce qu’ils arbitraient ou n’arboraient pas dans le parc. Nous avons ensuite appliqué des méthodes de vérification de la fiabilité des données.

Résultats : Les répondants fréquentait leur parc préféré entre 1 et 7 fois par semaine; la moyenne était de 2,5 fois par semaine. Seulement 49 % des répondants fréquentait le parc le plus proche de leur point de départ (domicile ou garderie); la majorité faisait un trajet de plus de 4 km pour y aller. En moyenne, les enfants passaient 4 heures dans le parc. Nous avons ensuite étudié les préférences des parents des jeunes d’environ 6 à 11 ans pour les parcs de quartier.

Conclusion : Cette étude donne des aperçus précieux sur la fréquentation des parcs par les parents qui pourraient avoir des conséquences importantes pour l’augmentation de l’activité physique des enfants. En tenant compte des préférences des parents dans les stratégies de création ou de réaménagement des parcs locaux, on peut affecté les ressources publiques limitées en maximisant leur impact sur l’activité physique des enfants.