

**Outdoor Fitness Equipment in Urban Parks:
Public Use, Perceived Benefit and Suggested Enhancements**

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Abstract

This study examined public use and perceptions of park fitness equipment in a small urban centre.

Of the 1013 adults observed across 106 hours in active parks 2.7% used the equipment, most were male.

Activity intensity was higher among users of the equipment compared to other parks users. Of 139 residents interviewed, 22.3% reported regular park fitness equipment use. Residents viewed the accessibility of the equipment as beneficial for community health, sense of community, and families. Improved advertising, lighting, equipment, instructions, ground materials, maintenance, and onsite trainers were suggested to increase public use.

Highlights

(3 – 5 bullets – 85 characters including spaces per bullet point)

- Few adults were observed using active park fitness equipment in a small urban centre.
- Equipment users were observed exercising more vigorously than other park users.
- Caution is needed when using self-report data to estimate equipment use.
- A number of ways to increase use of the equipment were highlighted by adults.
- A novel recommendation was a free onsite trainer to encourage public use.

BACKGROUND

Despite the widely accepted benefits of an active lifestyle²¹, physical inactivity remains one of the greatest threats to population health. Physical inactivity contributes to the global burden of chronic disease and its effects on life-expectancy are comparable to that of smoking and obesity¹².

Government bodies internationally are taking action to promote increased physical activity in populations. Public health evidence suggests interventions that engage the community and alter the environment around individuals to make healthy decisions an easy choice may be particularly effective at improving population health^{7, 17, 22}. Increased public access to exercise facilities has been identified as an important way to increase physical activity³. Low income groups, for example, have reported they would engage in physical activity more frequently if access was improved^{2, 1}.

To address the need for greater access to exercise facilities in communities, government municipalities have begun to create “fitness zones” in outdoor parks⁵. Exercise equipment is often arranged together in one area of a park, or it is arranged in a series of stations connected by walking paths. These facilities have several important benefits. The equipment stations allow large numbers of people to engage in activity that improves musculoskeletal fitness, which is an area of fitness that is often neglected but of crucial importance for reducing mortality risk²⁰. The equipment stations are free to use and thus accessible to everyone, environmentally friendly as they require no electricity and minimal maintenance, and they can help build a sense of community as they may increase the use of parks and green space⁵.

While many dollars have already been spent and many more have been committed to expanding active park equipment in parks across many part of the world, there is a distinct lack of research to allow policy-makers to assess whether active parks have had a measurable and positive impact on physical activity, community health, and community connectedness^{4, 5, 8}. The few published studies to date took place in large metropolitan areas^{5, 14, 16}. Cohen and colleagues⁵ did not find a statistically significant increase in active park use as compared to parks that did not have fitness equipment. They did, however, find that the equipment attracted new park visitors, and that there was an increase in moderate to vigorous physical activity in active parks⁵. Cohen et al. concluded that the active parks were most successful in densely populated areas with limited public exercise facilities. However, 50% of the world’s population lives in cities that are not densely populated, with fewer than 500,000 residents¹⁸. Research is needed to determine whether active park equipment is an effective strategy to increase physical activity in smaller urban centres. Research is also needed to gauge public perceptions about the benefits of active park equipment, and ways to increase use.

¹ Canadian Fitness and Lifestyle Research Institute (2010). *2009 Physical Activity Monitor: facts and Figures. Do more opportunities mean more physical activity?* Retrieved from <http://www.cflri.ca/media/node/132/files/PAM%202009%20Bulletin%2004%20More%20opportunities%20more%20use%20EN.pdf>

The objectives of this study were: (1) to determine how frequently active park equipment is used across two sites in a small urban centre in western Canada (approximately 100,000 residents), and the characteristics of residents who used the equipment; (2) to determine if physical activity intensity was higher in active parks compared to regular parks and (3) to garner community perceptions on the benefits of active parks, and if deemed beneficial, ways to increase use.

METHODS

This mixed methods study collected both direct observation and self-report interview data on active park equipment use. All procedures were approved by the Institutional Human Subject Research Committee, and all interviewees gave verbal informed consent.

Park Selection

Six parks were selected for this study. Each shared several common features including children’s play equipment, walking paths, and grass fields. No selected parks had water features such as ponds or lakes. Two parks had adult exercise equipment (active parks) and four did not (regular parks). One active park was adjacent to a school yard and baseball fields. The regular parks that were chosen for comparison included one in close proximity to each active park and two in a separate area of the city where there were no active parks (Table 1).

Table 1. Description of active and regular parks observed

	Average Park Size Sq. Km (hectare)	Adult Pop. in census tract	% ≥65 yrs	Census Tract Size Sq. Km (hectare)	Population Density (Adult Pop per Sq. Hectare)
Active parks (<i>N</i> = 2)	.045 (4.6)	918	26.0%	.491 (49.23)	18.65
Total Regular Parks (<i>N</i> = 4)	.029 (2.9)	2293	18.8%	.832 (83.36)	27.51
Regular parks selected close to active parks (<i>n</i> =2)	.037 (3.7)	1149	24.3%	.46 (46.09)	24.93
Regular parks selected in other areas of city (<i>n</i> =2)	.023 (2.3)	1144	13.4%	.372 (37.27)	30.99

The two active parks had exercise equipment configured differently. In one active park there were 5 machines clustered together near the children’s playground; in the second park there were 3 to 4 machines in 5 separate stations that were organized in clusters and spread out with walking paths between them. Equipment in both parks included machines for both aerobic and resistance exercise.

Observational Data

To examine the frequency of park use, observation data were collected using the System for Observing Play and Recreation in Communities (SOPARC). This validated system quantifies and classifies park users, and provides an estimate of exercise intensity¹³. The SOPARC is based on momentary time sampling of specified target areas and uses Playcheck recording (Planned Activity Check). It is a reliable, feasible and well-used instrument for examining physical activity in community parks. Reliability was established by observing over 16,000 individuals

in 165 parks¹³. Cohen and colleagues⁵ used the SOPARC to specifically investigate active parks and found it to be an effective tool for this purpose.

Target areas for observation were mapped in advance based on size and location, and included grass fields, walking paths, playground equipment, and active park equipment. Observations were conducted by trained observers and validated SOPARC tools and recording sheets were adapted for use on a tablet computer during data collection. Observers systematically rotated through target areas every 10 to 15 minutes based on the number of observation points at each park, counting every individual and noting gender, age group, activity type, and intensity using SOPARC physical activity codes. An additional activity code was created specifically for the active park equipment. The SOPARC system also permits the estimation of energy expenditures for each target area and thus enables activity comparisons between different parks. The activity of each person observed was classified as either sedentary, walking, or vigorous, and energy expenditure for each was estimated with a MET (metabolic equivalent) of 1.5, 3 and 6, respectively.

Observations were conducted in each park in 3 seasons (spring, summer, and fall). In the case of inclement weather an observation day was rescheduled. The observation schedule was designed to cover 5 days (3 week days and 2 weekend days) in each park and observation hours were systematically rotated cover all daylight time periods. Morning observations were classified as 06:30 to 12:00, afternoon was 12:00 to 16:00 and evening was 16:00 to dusk. Over the 3 seasons the selected parks were observed for 298 hours in total with an average of 106 hours observed in active parks and 192 hours observed in regular parks.

Interviews

To gather additional data on active park equipment use, and garner community perceptions about the benefits of active park equipment, as well as potential ways to increase use, face-to-face interviews were conducted with 139 adults. The average interview length was 10-15 minutes. Approximately 60% of the interviews were collected through door-to-door interviews, 37% were collected through intercept interviews within active parks, and 3% through telephone interviews. All participants received \$10 gift certificate for their participation. Door-to-door surveys were conducted with households in a 1 kilometer radius of each of the two active parks and one adult was interview per household. For the park user intercept interviews, research assistants walked through each target area and approached adults they passed to invite them to participate in the study.

Survey questions assessed awareness of the active park equipment in the neighborhood and frequency of equipment use. If respondents were aware of the park, open and close-ended questions were asked about perceived benefits of the equipment in the community, limitations of the equipment, and suggested ways to increase equipment use. Responses to these questions were audio-recorded and transcribed. Finally, self-

reported physical activity was assessed using the Godin Leisure-time Exercise questionnaire⁹ and sociodemographic characteristics were collected.

Analysis Strategy

Our first objective was to examine how frequently active parks and active park equipment was being used. Hours observed in parks varied by season and time of day. Thus total adults observed were divided by number of hours observed in the specified time period to create persons observed per hour, so that differences could be examined across categories. Independent samples t-tests and chi-square were used to examine differences across groups. We also collected self-report data on active park equipment use from local residents.

The second objective was to determine if activity intensity was higher in active parks, and on active park equipment. We selected an observational method that allowed for the calculation of METs. Using independent samples t-tests, average activity intensity observed among adults engaging in active park equipment use was compared to the average intensity observed among adults engaging in other activities in active parks, and in regular parks. The alpha was set at 0.05 for all statistical tests.

Our final objective was to garner perceptions on the benefits of active park equipment among local residents, and ways to increase active park equipment use in a small urban centre. Both quantitative and qualitative data were collected through face-to-face interviews. Quantitative data were summarized using frequencies and crosstabs. Statistical differences were examined using independent samples t-tests for interval level data, and chi-square tests for ordinal and nominal level data. After transcription of audio-recorded data, qualitative information was examined using a phenomenological lens^{10, 19}. This approach was selected to let the qualitative data speak for itself, often in participants' own words, in order to better understand how people perceive and experience the active parks in their neighborhoods¹⁵. Such an approach allowed participants' own stories, narratives and words emerge and find a voice. To begin this process, several members of the research team read and re-read the transcripts noting key words and initial reactions to the data. Over time larger themes and sub-themes emerged. These were discussed with the interviewers and other team members and refinements were made. Wherever possible, participants own words were used to describe the emerging themes, using Osborne's²¹ suggestions throughout to establish the trustworthiness of themes and subthemes – such as establishing coherent and illustrative definitions and checking interpretations against the original transcripts for goodness of fit. Quantitative data were examined using SPSS 21; qualitative data were examined using NVivo 10.

RESULTS

Observed Frequency of Park Use and Active Park Equipment Use

A total of 1646 persons were observed over 298 hours (5.5 persons per hour) across three seasons. In active parks we observed 1013 persons across 106 hours (9.56 persons per hour), and in regular parks (i.e., parks without exercise equipment) we observed 633 persons across 192 hours (3.30 persons per hour). There were significantly more people observed using active parks across each season, time of day, and day of the week as

compared to regular parks. As shown in Table 2, active park use was heaviest in the evening and on weekends; spring and fall were the busiest seasons. Individuals observed using active parks were less sedentary, $\chi^2(1, N = 1646) = 18.7, p < .001$, and exercised more vigorously, $\chi^2(1, N = 1646) = 19.86, p < .001$, compared to those observed in regular parks. The proportion of females observed and the proportion of older adults observed in the parks were similar to population census estimates.¹ Adults were observed engaging in a number of activities across parks. The most common activity was walking.

Observed Active Park Equipment Use. Less than 3% of adults observed in active parks were using the active park equipment. A greater proportion of males versus females, and younger versus older adults were observed using the equipment. Frequencies were too low to conduct statistical difference measures on these observations. Adults were observed using the equipment more frequently in the spring, on weekdays, and in the evenings.

Self-Reported Active Park Equipment Use

To supplement observational data, self-report data were collected from 139 adults in active parks or living within a 1 kilometer radius of the two active parks examined in this study. Most adults interviewed were married and employed (Table 3). The sample represented a wide range of age groups.

Self-Report Active Park Equipment Use. Approximately 86% were aware of the active park equipment in their area. Almost half (48.9%) reported they had used the equipment at least once. Most who reported using the equipment used it rarely (47.1%). Approximately one quarter (22.3%) of the sample reported using the equipment monthly or more ($N = 31$). We separated this sample from those who used the equipment less frequently to better understand the differences between these groups. Although women and non-seniors were more likely to report using the active park equipment regularly, gender and other sociodemographic characteristics were not significantly different between those who reporting using and not using the equipment regularly. Self-reported regular equipment users were not statistically more likely to feel confident using the equipment than those used it less. However, there were some differences between these groups. Regular equipment users reported more frequent physical activity than adults who used the equipment less often/not at all ($\chi^2 = 8.74, df = 3, p = 0.03$), although there was no difference between these groups on the Godin Leisure Scale. Regular equipment users were 3.6 times more likely to believe the equipment increased physical activity in their neighborhood (95% CI = 1.5 to 8.2), and 5.1 times more likely to believe the equipment enhanced a sense of community (95% CI = 2.2 to 11.9) than those who reported less frequent/no equipment use.

Activity Intensity in Active Parks

Activity Intensity in Parks Generally. As shown in Figure 1, most park users were engaged in moderate intensity activity in both active parks and regular parks. Average estimated MET values for adults observed within active parks ($M = 3.29; SD = 1.17$) were significantly higher than values observed within regular parks ($M =$

2.97; $SD = 0.99$), $t = 5.69$, $df = 1644$, $p < 0.001$. This difference could not be attributed to active equipment use, as less than 3% of adults observed were using the equipment. Average estimated MET values for adults observed within active parks ($M = 3.29$; $SD = 1.17$) were significantly higher than values observed within regular parks ($M = 2.97$; $SD = 0.99$), $t = 5.69$, $df = 1644$, $p < 0.001$. This difference could not be attributed to active equipment use, as less than 3% of adults observed were using the equipment. As shown in Figure 1, most park users were engaged in moderate intensity activity in both active parks and regular parks. The small number of adults observed using active park equipment were more likely to engage in vigorous exercise, $\chi^2(1, N = 1013) = 5.51$, $p = .019$.

Activity Intensity on Equipment. On average, activity intensity was higher among adults observed using the active equipment as compared to adults engaged in other activities in active parks $t = -2.68$, $df = 1011$, $p = 0.008$. These adults were also significantly more likely to engage in vigorous exercise, $\chi^2(1, N = 1013) = 5.51$, $p = .019$. Although cell sizes were not sufficient for significance testing, it can be observed in Table 2 that a large proportion of adults using the active park equipment were males and non-senior adults. Active park equipment use was highest in the spring, on weekdays, and in the evenings.

Community Perceptions regarding Active Park Equipment

When asked their opinion on the active park equipment in their neighbourhood, most perceived it to be beneficial. Overall, 82% reported that it enhanced physical activity in the neighborhood at least somewhat, and 70% felt it enhanced a sense of community in their neighbourhood. When residents were asked open-ended questions about perceived benefits three themes emerged. The first was that the equipment had important health benefits for those who used it.

"I had two discs in my back that were dislocated and I like to workout and stay in shape and keep my body strong and stuff. So I use it kind of as a therapy." Male, 25-39

That said, most adults noted as one participant stated: *"I don't see very many people out there. So it's not getting used"* Female, 40-59. Most residents commented on "the potential" the equipment had to improve health, rather than the actual health improvement occurring in the community because of it. Some residents described the equipment as a neighbourhood "reminder to exercise". As stated by one participant:

"I think it reminds us to exercise even though I don't see a ton of people using it. It's like "Oh I should use that sometime." Male, 25-39

The second commonly perceived benefit was the accessibility of the equipment, although some noted accessibility limitations in winter. Many commented that the equipment could engage all ages, and provided access to exercise that could build muscle without purchasing a gym membership. As stated by one resident:

"I'm a low income parent. Going to the gym is not affordable for our family. That's not an option... it's my only option for resistance training equipment." Female, 25-39

Benefit to families was also an important theme in the data. Many noted that parents could use the equipment while their child was playing baseball nearby or busy on the children's play structure, and some shared their own observations of this:

"I think its great; the young dads use the exercise equipment. I've seen them while the kids on the park so they can still see the kids, they can watch and make sure they aren't in trouble but the dads are working out. I have seen some moms and some older ladies on it too." Female, 40-59

Many parents interviewed also echoed these comments:

"Just a lot handier than actually going to the gym, I can bring my kid here and still get a workout in."
Male, 25-39

"It's good for me and it gives me something to do while I'm watching the kids and I think it's really good role modeling for the kids. Like I've always thought that it was kind of bad role modeling that parents come to the park and the kids are active and the parent sit like a lump on the bench. Whereas this way my kids can see me playing on the grown up equipment right. They can see that when you get older you can still be active and having fun." Female 25-39

"Keeps everyone active and helps my kids go to sleep at night – A lot!" Female, 25-39

Community Perceptions Regarding Ways to Increase Active Park Equipment Use

Participants were presented with a list of ways to increase park use and asked to select those they agreed were important. Interestingly, the two most commonly selected ideas were to increase advertising within the park and outside the park. However, most of the respondents indicated they were aware of the equipment, but did not use it regularly.

Residents were then asked to discuss ways to increase active park use by either expanding on the ideas presented to them, and/or discussing additional ideas. These comments were audio-recorded, transcribed and qualitatively examined. Ten qualitative themes evolved out of these data; 7 of which expanded on the ideas presented to participants during close-ended questioning. Three additional themes emerged out of the interviews that were not on this list. All 10 themes are presented in Table 4 with supporting examples of quotes from participants.

DISCUSSION

This mixed methods study contributes to the literature by examining the use of outdoor fitness equipment across three seasons by adults in a small urban centre. The limited research published on this topic to date has mainly focused on more densely populated areas. Findings contribute to our understanding of the differences between direct observation and self-report data on active park equipment use, resident's perceptions of the equipment, and potential strategies that could increase public use of this environmental intervention.

We observed only 2.7% of park users actually engaging with the fitness equipment in any way. This is lower than was reported by Cohen et al.⁵ who found about 5.5% of people using the equipment, but higher than Cranney et al.⁶, who observed only 1.9% of people using the equipment. In comparison to regular parks with no exercise equipment, we observed more people in the active parks across all seasons and we also found that estimated activity intensity was higher in active parks compared to regular parks. These differences cannot be explained by the fitness equipment, however, given that less than 3% of park users actually used it. These differences could also not be attributed to differences in the age composition of local residents, as the population surrounding active parks had a significantly larger proportion of older adults than regular parks (Table 1). The active parks were slightly larger than the regular parks used for comparison, and had some characteristics that differed from regular parks (eg: more walking paths, proximity to an elementary school) which may have accounted for the difference in number of park users and activity intensity.

Despite low observed use, residents reported using the equipment more frequently. Furthermore, although our observational data suggest that a more men than women use the equipment, our self-report data suggest a larger number of women than men report using the equipment regularly (i.e., once a month or more). While it is possible that we simply missed a number of equipment users, we were careful to ensure the observation schedule covered all times of the day and days of the week across a number of weeks in each season. More likely, these discrepancies illustrate the importance of using objective measures for quantifying behaviours that are subject to social desirability bias, such as physical activity¹.

We observed that approximately 15% of adults using the equipment were older adults. Our self-report data similarly found that approximately 13% of those who report using the equipment monthly or more were older adults. This suggests that older adults may be an important target demographic for promoting the active park equipment.

Despite being apparently underutilized, the majority of community members and park users interviewed perceived the outdoor fitness equipment as beneficial. The main benefits identified were the potential for improving health, the accessibility of the equipment, and opportunities for families to be active. Many residents did recognize the low levels of equipment use, and so many of the perceived benefits reported may have been potential benefits as opposed to actual benefits. This suggests active parks are potentially valuable for enhancing physical activity in neighborhoods, but strategies are needed to increase their use.

When asked about ways to increase the use of the equipment, a common theme was a need for increased advertising, despite most residents indicating they were aware of the equipment. As can be seen from the quotes associated with themes 1 and 2 (Table 4), many residents saw a need for better advertising about what the equipment was for and who could use it. This was also evident in themes 5 and 6, which was a need for

more instructions on how to use each piece of equipment and how to create a workout. Related to this, a 4th theme that emerged was the potential benefit of having an instructor or trainer available at certain times to demonstrate the equipment or lead a class. This suggestion is supported by the findings of Hunter et al.¹¹ who reviewed physical activity interventions in urban green space and found that physical activity programs combined with changes to the built environment were more effective than built environment-only changes. Thus, future studies should explore the effectiveness of physical activity programming in active parks. Our results suggest that weekday evenings may be a prime time for this type of intervention.

This study did have some limitations. The active park equipment was already installed and so it is unknown if the active park equipment changed the use of those parks directly. However, active parks were compared to regular parks both within in the same neighborhood and in other neighborhoods, and use of the equipment was specifically coded, so it is unlikely that observed differences in parks was directly attributable to the fitness equipment. A second limitation is that park users were identified as using the fitness equipment if they engaged with it in any way for any length of time. Thus, our results do not clarify if people were using the equipment as it was intended or in ways that were effective for improving aerobic or musculoskeletal health outcomes. Future studies should examine how people are using the active park equipment and if the brief instructions provided are sufficient to allow people to use it correctly.

In summary, this study found that active parks are perceived as beneficial by residents in a small urban community, but that overall use is low. Physical activity programs using the equipment should be explored as a potential strategy to increase the effectiveness of these environmental interventions.

Table 2. Adults observed in active and regular parks

	Regular Parks (N = 633)	Active Parks (N = 1013)	Active Park Equipment Users (N=27)	Active Park Users Other Activities (N=986)
Adults observed/hr by season*				
Spring (111 hours observed)	3.62	11.21	0.32	10.89
Summer (111 hours observed)	3.41	6.78	0.20	6.58
Fall (76 hours observed)	2.65	11.29	0.25	11.04
Adults observed/hr by time**†				
Morning	2.79	8.03	0.23	7.80
Afternoon	2.97	8.68	0.24	8.44
Evening	4.04	11.81	0.30	11.51
Weekday	3.36	8.73	0.34	8.39
Weekend	3.20	10.60	0.15	10.45
Demographics of adults observed n (%)				
Females	341 (53.9%)	518 (51.1%)	10 (37.0%)	508 (51.5%)
Older adults	92 (14.5%)	185 (18.3%)	4 (14.8%)	181 (18.4%)
Exercise intensity observed, n (%)				
Sedentary	99 (15.6%)	88 (8.7%)	0 (0%)	88 (8.9%)
Walking intensely	490 (77.4%)	782 (77.2%)	19 (70.4%)	763 (77.4%)
Exercising vigorously	44 (7%)	143 (14.1%)	8 (29.6%)	135 (13.7%)
Total METs observed (average)	1882.5 (2.97)	3336 (3.29)	3.89 METs	3.28 METs
Park activities observed, n (%)				
Using fitness equipment	NA	27 (2.7%)	27 (100%)	0 (0%)
Walking	424 (67.0%)	541 (53.4%)	0 (0%)	541 (54.9%)
Biking	42 (6.6%)	161 (15.9%)	0 (0%)	161 (16.3%)
Running	17 (2.7%)	108 (10.7%)	0 (0%)	108 (10.9%)
Sitting	76 (12.0%)	58 (5.7%)	0 (0%)	58 (5.9%)
Other (e.g., playing soccer)	74 (11.6%)	118 (11.6%)	0 (0%)	118 (12.0%)

*Hours observed varied by season and time; total adults observed were divided by number of hours observed in the specified time period.

†Morning = 06:30 – 11:30, afternoon 12:00 – 15:30, evening 16:00 to dusk.

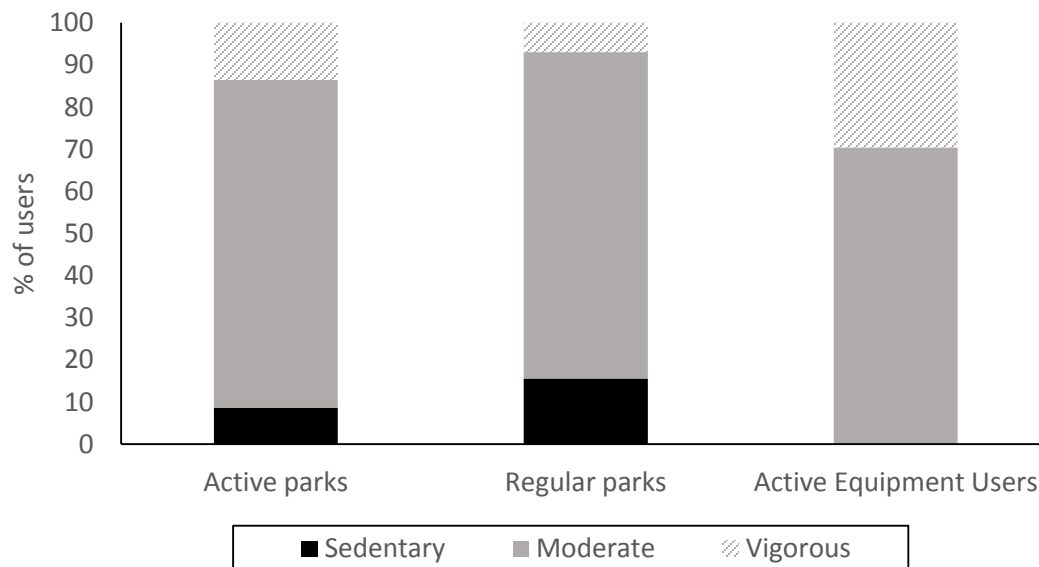
Figure 1: Proportion of park users engaged in sedentary, moderate and vigorous activity

Table 3. Self-report information from adults living near active parks

	Full Sample, <i>N</i> = 139	Use Active Equipment ≥ Monthly <i>N</i> = 31
Gender		
Female	90 (65.7%)	19 (61.3%)
Male	47 (34.3%)	12 (38.7%)
Age Categories		
18-25 years	14 (10.1%)	2 (6.5%)
25-39 years	45 (32.4%)	14 (45.2%)
40-59 years	47 (33.8%)	11 (35.5%)
60+ years	33 (23.7%)	4 (12.9%)
Marital Status		
Married/common law	89 (64.0%)	23 (74.2%)
Not currently married/common law	50 (36.0%)	8 (25.8%)
Education		
≤ High school	43 (30.9%)	5 (16.1%)
Some college or university	34 (24.5%)	9 (29.0%)
College or university graduate	62 (44.6%)	17 (54.8%)
Employment		
Employed full or part-time	92 (67.6%)	21 (70.0%)
Retired	27 (19.9%)	5 (16.7%)
Other	17 (12.5%)	4 (13.3%)
How often do you engage in regular activity*		
Often	58 (41.7%)	20 (64.5%)
Sometimes	55 (39.6%)	7 (22.6%)
Rarely or never	25 (18.0%)	4 (12.9%)
Family Member Use of Active Equipment		
Spouse	17 (12.4%)	11 (36.7%)
Children 5-17 years	30 (21.9%)	5 (16.7%)
Children ≥18 years & others in home	11 (8.0%)	6 (20.0%)
No family members use equipment	79 (57.7%)	8 (26.7%)
Confidence in using active park equipment		
Very confident	67 (48.6%)	18 (58.1%)
Somewhat confident	51 (37.0%)	11 (35.5%)
Not very or not at all confident	20 (14.5%)	2 (6.4%)
Frequency of Active Park Use		
Never	15 (10.8%)	0 (0%)
Once a month	26 (18.7%)	2 (6.5%)
2-4 times a month	34 (24.5%)	8 (25.8%)
A few times a week	77 (55.4%)	21 (67.7%)
Aware of Active Equipment		
Yes	116 (85.9%)	31 (100%)
No	19 (14.1%)	31 (100%)
Personal Use of Active Equipment		
Use equipment during every park visit	14 (10.1%)	13 (41.9%)
Use equipment ¼ to ½ of park visits	22 (15.9%)	18 (58.1%)
Use equipment rarely or never	103 (74.0%)	0 (0%)

Table 4. Themes identified to increase active park equipment use from individual interviews

Number	%	Theme and Supporting Quotations
Theme 1	60%	<p>More advertising outside the park “Awareness – a lot of people don’t know it is here. Wouldn’t know unless you stumbled on it. Need to realize it is not just playground equipment – it is the same colour as the kid’s playground equipment so people don’t know the difference.” Male 25-39</p> <p>“...possibly doing some networking with mom’s groups, midwives, they do like postnatal follow-ups with women and I found after I had my kids that my health was really impacted and getting back into shape and finding ways to get thin again was really challenging. And to put that out as a possibility to go network with places where the kids are at preschool and stuff and to say this is a place where you can take your kids and work on your fitness might be a way too – a lot of the time it’s moms at the parks.” Female 25-39</p>
Theme 2	44%	<p>More advertising within the park “It always nice when they advertise it to let you know what the benefits are, what the muscle tone is and what it can do for you, you know.” Female 60-69</p> <p>“Signage would help because I didn’t even know this was here until I accidentally walked down that green strip over here. Then I thought “oh wow what’s all this out here”. So that was very nice. But I don’t see any signs that say there is exercise equipment here.” Female, 60+</p> <p>“Well, it just doesn’t look like what you find in a gym, so on first glance I don’t think people realize it’s exercise equipment. People are unaware and unsure of how to use it.” Female, 40-59</p>
Theme 3	33%	<p>Lighting around equipment “Well for me, the only time I can kind of do things on my own is when my kids are in bed. So that’s where the better lighting comes in. I don’t want to be out here by myself in the dark. So, that’s the biggest thing for me.” Female, 25-39</p> <p>“Maybe they could have another light somewhere in it to give a little more light and more of a deterrent. I was quite impressed when they popped in the solar light last year.” Female, 60-69</p>
Theme 4	22%	<p>Onsite trainers “...if they had an open house to show us how to use them and what not. There are instructions on it, and I think we have all sort of jumped on it and played on it but maybe not feeling too strong.” Female, 40-59</p> <p>“having the fitness instructors maybe hold classes there...that is actually how I found out about it...my neighbor across the street told me that he attends a fitness class and the instructor walks him through it; I joined him; and it was great.” Male, 40-59</p> <p>“I think that if you had door to door personal trainers and said, ‘hey, come out on this night and we are just going to test out the equipment’ and just door to door and say ‘hey, like we welcome everyone - all shapes and all sizes’ and I think you need to make that personal connection, umm, to get the non-active people out. Because non-active people with a brochure or a sign will just avoid it but if there is someone that is going to help them with equipment who is approachable I think a face to face conversation to say ‘I will be at the park at 7 o’clock pm on Wednesday, come meet me there’ Female, 40-59</p>
Theme 5	20%	<p>Improved written instructions on equipment “Maybe having some instructions on there - how can you use it? What benefit would it be? This equipment is good for the legs... Because a lot of the people look at it and wonder “why would I use that?” Female, 60+</p>
Theme 6	19%	<p>More instructions on how to create a workout “Ideas about how to get a workout using all the equipment... signs to let us know exactly what to do in order to use the equipment properly.” Female, 25-39</p>
Theme 7	18%	<p>Different kinds of equipment “I think because they are androgynous they are sometimes not, for a small female, it’s harder for them to use... like maybe have two sets – a male targeted one and a female targeted one. They are awkward. They do have a limit, an age limit on there.” Female 25-39</p>

“The choice of the equipment I don’t feel is the best choice. Like the elliptical is really no good – it has no resistance.” Female 25-39

“... just something that works your shoulders and arms a little more would be nice. There is a lot to work your legs, back, your abs but not so much for the shoulders and arms.” Female 25-39

“I think there could be more variety and I’m not sure the full circuit is giving all areas of the body the exercise it needs.” Male, 60+

Theme 8

Improve ground materials used around equipment

“I mean if they built that up and maybe put down something different other than the wood chips, like even some kind of gravel or pavement. With that kind of stuff your feet aren’t level, whereas with pavement its’s just like working out on a gym floor, you know.” Male 25-39

“...rubber pellets...maybe but it'd be like no impact. Well, low impact... it would be more cushioning I guess.” Female, 25-39

Theme 9

Location of equipment / Amenities around equipment

“Too far from kid’s playground. Adults with kids worry about seeing their children if trying to use the equipment at the same time.” Male, 18-25

“I think just being out in the open. For some people, it's like "I don't want people to know what I'm doing." Or exercising. Even sometimes when I'm using them, it's like, "oh, someone's coming - I'm not going to... I'll wait until they go by." Just in case I'm not doing it right. Which is silly, I know it's silly, but that's just me.” Female, 40-59

“Just having the spray park on hot summer days draws people in general so I think if they had, you know even a better playground it would draw more people out because my kids know where all the good parks are and that’s usually where we go.” Female, 40-59

“I don’t think there are enough things to do there that people would come out particularly to do it. You don’t have anything like a basketball court or something that would draw people here for the exercise. If you were drawing people here for exercise and they wanted to spend a few minutes before or after doing something like that, it might be a bit different. Female, 60+

Theme 10

Maintain the fitness equipment area.

“You see the mother's go over there with the kids and the first thing the kid does is go right for the water. And it's like 6 inches deep. The maintenance part I think you need to address. You need to!” Female, 60+

“As far as I would say, the maintenance has got to be there and making it so that after is rains, you know, I don’t have a giant puddle to run around.” Female 60-69

“Maintaining the path and the lighting and just making sure that the equipment is functioning. You know, check it out.” Female, 25-39

“You can't get in like, especially the push up bars and the squat machine. I mean, the squat machine, the water's probably up to here (gestured to mid-calf) when it rains.” Male, 25-39

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Endnotes about analysis

ⁱ Analysis notes: Statscan 2011 census indicates 51.4% of people in Lethbridge are female, and 15.2% are older adults across both genders: <https://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-csd-eng.cfm?LANG=Eng&GK=CSD&GC=4802012>. Lethbridge 2013 census reports 51.2% female: <http://www.lethbridge.ca/City-Government/Census/Documents/2013%20Final%20Census%20Report.pdf>