Gender disparities in park use and physical activity among children and teens

Kathryn P. Derose, Ph.D., M.P.H.

Childhood Obesity Conference
May 31, 2015
Today’s discussion

1. Why care about gender disparities in park use and physical activity?
2. What do we already know about gender disparities?
3. Results from a large study of parks in Los Angeles
4. Implications of our findings
Why is this important?

- Regular physical activity important for health across the lifespan
- Parks second after schools as settings where youth engage in physical activity
- Few studies examine park use and park-based physical activity among children and adolescents

Source: laparksfoundation.org
What do we already know?

- Girls are less physically activity than boys
- Park-based observations generally find
  - more males than females
  - males are more active than females
- Access to safe parks is important for physical activity among adolescents in urban areas
Our Study

- 48 parks in low-income communities in Los Angeles
- Examined gender disparities in park use and PA among children and teens

Research Questions

- Are there differences by gender in:
  - park use
  - levels of physical activity
  - types of activities in parks

Methods

- Used **SOPARC** to observe parks:
  - 3 weekend days and 3 weekdays over 6 months
  - over four 1-hour time periods
  - counted number of users by age and activity level
Parks mapped into target areas

Users counted by apparent demographics and activity level

- Male vs. female
- Child (0-12 years); teen (13-19 years)
- Sedentary vs. moderate vs. vigorous
Trained promotoras collected the data
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households in poverty (%)</td>
<td>27%</td>
<td>14 – 41%</td>
</tr>
<tr>
<td>Population within 1 mile</td>
<td>52,310</td>
<td>25,530 – 133,123</td>
</tr>
<tr>
<td>Park size (acres)</td>
<td>8</td>
<td>2 – 26</td>
</tr>
<tr>
<td>Average number of youth park users</td>
<td>770</td>
<td>68 – 3,160</td>
</tr>
<tr>
<td>Male youth park users (%)</td>
<td>64%</td>
<td>46 – 86%</td>
</tr>
<tr>
<td>Number of observed activity sessions</td>
<td>20</td>
<td>4 – 65</td>
</tr>
</tbody>
</table>
Average number of youth park users and levels of physical activity

<table>
<thead>
<tr>
<th></th>
<th>Boys (0-12)</th>
<th>Girls (0-12)</th>
<th>Boys (13-19)</th>
<th>Girls (13-19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVPA</td>
<td>147</td>
<td>74</td>
<td>84</td>
<td>27</td>
</tr>
<tr>
<td>Sedentary</td>
<td>167</td>
<td>117</td>
<td>97</td>
<td>57</td>
</tr>
</tbody>
</table>
Energy expenditure for youth park users by gender and age group

Metabolic Equivalent of Task (MET)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Group</th>
<th>METs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>0-12</td>
<td>800</td>
</tr>
<tr>
<td>Girls</td>
<td>0-12</td>
<td>400</td>
</tr>
<tr>
<td>Boys</td>
<td>13-19</td>
<td>400</td>
</tr>
<tr>
<td>Girls</td>
<td>13-19</td>
<td>100</td>
</tr>
</tbody>
</table>
Top 9 primary activities by gender: Children (ages 0-12)
Top 9 primary activities by gender: Teens (ages 13-19)
Percent active in top 10 target areas: Children (ages 0-12)

Target Areas

% of Children in MVPA

Play areas | Baseball | Lawn | Gym | Sidewalks | Basketball | Sports fields | Classrooms | Bleachers | Skate park

Boys | Girls
Percent active in top 10 target areas: Teens (ages 13-19)
Percent active in organized and supervised activities by gender: Children (ages 0-12)
Percent active in organized and supervised activities by gender: Teens (ages 13-19)
Conclusions

• More boys than girls use parks across all age groups

• Boys more physically active in parks than girls – disparities increase with age

• Across all areas, boys more active than girls
Implications

- Park use and physical activity disparities for girls require short and long-term responses
  
  ✓ strategies to draw more girls to the park
  ✓ programs that encourage girls to be more active in parks
  ✓ evaluations of programs like Girls Play LA

Source: laparksfoundation.org
Acknowledgements

RAND colleagues
Deborah Cohen, MD, MPH
Bing Han, PhD
Stephanie Williamson, BA
Terry Marsh, MPH
Laura Raaen, MPH

Funding
National Heart, Lung, and Blood Institute
(R01HL114283)

Contact for more information
derose@rand.org

AltaMed Promotoras