ABSTRACT

Methods

MEASURES

Waltz & Melzer MVPa pedometers (Figure 1) were used to measure:

- total step count
- total activity time (TA)

- moderate to vigorous activity (MVPA); defined as total time spent above 120 steps/min.

RESULTS

Table 1: Sample Descriptive Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender (M vs. F)</th>
<th>Average (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>M &gt; F</td>
<td>12.0 (2.5)</td>
</tr>
<tr>
<td>Weight</td>
<td>M &gt; F</td>
<td>65.0 (10.0)</td>
</tr>
<tr>
<td>Height</td>
<td>M &gt; F</td>
<td>155.0 (7.0)</td>
</tr>
<tr>
<td>BMI</td>
<td>M &gt; F</td>
<td>25.0 (3.0)</td>
</tr>
</tbody>
</table>

Table 2: Physical Activity Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender (M vs. F)</th>
<th>Average (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>M &gt; F</td>
<td>5,000 steps</td>
</tr>
<tr>
<td>MVPA</td>
<td>M &gt; F</td>
<td>500 steps</td>
</tr>
<tr>
<td>TA</td>
<td>M &gt; F</td>
<td>120 minutes</td>
</tr>
</tbody>
</table>

RESULTS

Graph 1: TA and MVPa Gender Comparisons

*p<.03

RESULTS

Graph 2: Overweight/Obesity Gender Comparisons

*p<.03

DISCUSSION

Mean pedometer wear-time of participants was 357.2 ± 26.4 minutes (-6 hr 41 min) during the school day. In general, younger children exhibited more TA and MVPa compared to older children, boys performed more TA (than girls at every grade level), and boys engaged in more MVPa than girls in grades 3, 4, 5, and 6 (P<.05).

Mean TA and MVPa were significantly lower than recommended for boys and girls at every grade. The Physical Activity Guidelines for Americans recommends that all children get at least 60 minutes of predominately MVPa each day; our results suggest that rural children get less than 5% of the recommended PA done while at school.

CONCLUSION

Intervention strategies are needed to reverse this trend.

The goal of generating Rural Options for Weight-Healthy Kids & Communities (GROW-HKC) is to prevent childhood obesity and promote healthy weight among children and families living in rural places. GROW-HKC focuses efforts in rural communities, schools, and families. The data presented here focus on the school environment.

PURPOSE

To examine physical activity (PA) patterns of rural children during the school day. In particular, we examined differences in PA behaviors across grades 1-6 and between boys and girls. We hypothesized that older children would be less active than younger children and that girls would be less active than boys at every grade. We also present overweight and obesity prevalence on the same cohort of children.

INTRODUCTION

Rural children and adults experience a greater obesity prevalence compared to children and adults living in more urban places.

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IDEA: OVERWEIGHT AND OBESITY

Overall, the data also show that overweight and obesity prevalence is increasing (particularly among rural boys), while at the same time as TA and MVPa is decreasing – among both boys and girls.

This highlights the critical need to increase physical activity opportunities at school, or provide adequate opportunities outside of school to ensure rural children meet the national physical activity recommendations.