Promoting Activity in the Parks: Kinesiology students serving as physical activity coaches

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Abstract

Purpose: Adding outdoor gym equipment to a park has the potential to influence the physical activity of park users (Cranney et al., 2016). This study piloted the feasibility of utilizing kinesiology students as physical activity coaches at outdoor exercise equipment in public parks.

Methods: Pairs of students were placed in 10 parks in four cities to coach park users with a total of 12 sessions held per park for a period of 11 weeks. Students were trained on motivational interviewing techniques and behavior change skills as part of their course work and incorporated these into their interactions with the park users. Students recorded attendance at their sessions including use of exercise equipment and coaching provided. If a resident was ‘coached’, the student at very least introduced themselves to the resident, but may have also discussed physical activity perceptions, goals, barriers, and regulatory skills. If a resident was tracked as ‘used equipment’, they were exercising on the exercise equipment. Also, the System for Observing Play and Recreation in Communities (SOPARC; McKenzie et al., 2006) was used to track park use and equipment use, both before (November) and after (May) the pilot took place.

Results: Over the 11 weeks, students coached 205 residents and tracked 475 residents using the exercise equipment.

There were no differences in overall park use (p=0.06) or intensity of activity (p=0.47). For exercise equipment use, there was a decrease that approached significance (November: M=7.3, SD=4.8; May: M=3.8, SD=2.6; p=0.06); however, the percent vigorously active remained constant (37.9% vs 36.3%, p=0.96). Interactions with Students:

• Few people today do not meet the suggested amount of physical activity (McKenzi et al., 2006)
• Exercise equipment use also showed a non-significant decrease in use from November (M=7.3, SD=4.8) to May (M=3.8, SD=3.0; p=0.05)

Discussion

• Students reported coaching residents on the use of regulatory/behavior change skills such as goal-setting and coping with barriers
• Provided opportunity for students to practice skills that are not common within Kinesiology curriculums (Brawley et al., 2013)
• One challenge experienced at the parks was a language barrier for our PA coaches who were non-Spanish speaking
• More than half of the students (N=18) did not speak Spanish

Limitations

• SOPARC scans were done during different seasons of the year (one in fall and another in spring) and variations in temperature may have been evident
• Interpretation of what constituted each type of activity on the checklists completed by students may have varied

Future Directions

• Examine changes in students’ skills for teaching behavior change skills
• Explore residents experiences with the PA

Introduction

• Physical inactivity and obesity has become a prominent issue across the country (Hallal et al., 2012)
• Few people today do not meet the suggested amount of physical activity (Trost et al., 2008)

• Neighborhood parks have been suggested to contribute to the physical activity levels of nearby residents (Han et al., 2013)
• Areas with higher density recreational sport and physical activities showed higher activity levels compared to areas with fewer resources (Duez Roux et al., 2007)
• Adding outdoor gym equipment to a park has the potential to influence the physical activity of park users, however use of such equipment may not be sustained over the long term (Cranney et al., 2016)
• However, park improvements may not always be linked to increased park use (Cohen et al., 2009)
• Providing student-led exercise programs in outdoor parks have shown promise in promoting physical activity levels among park users but did not translate to park use outside of the exercise programming time (Han et al., 2015)
• Teaching regulatory and behavior change skills has the potential to promote sustained physical activity adherence (Brawley, Gierc, & Locke, 2013)
• Yet, kinesiology students often lack skills in implementing such behavior change skills (Brawley et al., 2013)

Setting

• To increase physical activity levels among residents, St. Jude in partnership with various cities installed exercise equipment in ten parks in Orange County
• Parks varied in size with
• Seven parks were quite large had other facilities such as a handball court, basketball court, or a skate park
• Two parks were quite small with just exercise equipment and a small playground
• These parks were in low-income areas and to provide a free and readily available facility for residents
• However, the equipment was not being used, thus it was important to find a means to promote and motivate residents

To pilot the feasibility of utilizing kinesiology students as physical activity coaches at outdoor exercise equipment in public parks

Procedure:

• Overall park use was assessed twice, once in November prior to the students being placed in the parks and once in May after the students had been placed
• Pairs of student (N=25) held PA coaching session in the parks for 11 weeks
• Each session lasted 2 hours and there were 12 sessions were scheduled each week at the various parks (two parks had 2 sessions)
• Student were trained in motivational interviewing as well as regulatory and behavior change skills to incorporate in their coaching of residents
• Asked residents open-ended questions regarding their obstacles on being physically active such as lack of time and motivation
• Set goals, created action plans, and coping plans with residents
• Helped guide residents through appropriate use of equipment

Measures

Checklists completed by students

• Students tracked the visitors each session on:
  - Use of exercise equipment
  - Coached - introductions as well as discussed physical activity perceptions, goals, barriers, and regulatory skills
  - Recorded frequency of specific types of coaching (e.g., goal-setting, discussing PA guidelines, self-monitoring)
  - These were separated by age (adult/youth), gender (male/female) and language (English/Spanish/Other)

System for Observing Play and Recreation in Communities (SOPARC) (McKenzie et al., 2006)

• Parks were separated into target areas and each area was scanned by two researchers coding users in each target area
  - Coded by users by age, gender and physical activity level (e.g. female adult—sedentary, walking or vigorous)
  - Scans were conducted on one weekend (9am and 3pm) and one weekday (7am, 11:30am and 3:30pm)

Analysis

• Descriptive statistics were conducted on checklist information
• Dependent t-test was used to compare use between the November and May SOPARC scans

Results

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<tr>
<th>Interactions with Students:</th>
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<td>• 475 residents were reported as using the exercise equipment over 111 sessions</td>
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<td>• 233 (49%) residents were English speakers</td>
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<td>• 187 (39.4%) residents were Spanish speakers</td>
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<td>• 205 residents were coached by kinesiology students over the 111 sessions</td>
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<td>• Each session an average of 1.9 (0-9) residents were coached</td>
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<td>• 29 residents were recorded as being return visitors</td>
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<th>Park Use</th>
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<td>• Overall park use showed a non-significant decrease between November (M=131.7, SD=142.8) and May (M=92.7, SD=110.9; p=0.06)</td>
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<td>• Exercise equipment use also showed a non-significant decrease in use from November (M=7.3, SD=4.8) to May (M=3.8, SD=3.0; p=0.05)</td>
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<td>• This program appeared to be feasible with 111 sessions tracked over the course of a 11 weeks</td>
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<td>• 475 residents were recorded as using the exercise equipment with 43% of them receiving coaching from the PA coaches in the park</td>
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