

Effectiveness of a Physical Activity Intervention on West Virginia Student Participants with Reported Special Health Care Needs

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Background

- West Virginia's (WV) current obesity rate for 10 to 17 year-olds is 20.3%
 - Children with physical activity limitations are twice as likely to be overweight
- Programming designed to increase physical activity among this age group exists but is limited in terms of where it can be implemented, cost, and how it may be tailored for children with varying abilities
- The Activate! Project was funded to test the effectiveness of new physical activity programming in the school and home settings
 - Project had varying abilities in mind but focus was not explicitly on children with varying abilities



Objectives

- To compare Activate! intervention effectiveness overall as well as for select proportions of the sample based on varying abilities

Methods

Subjects

- 576 5th grade students and parents participated;
 - 12.6% of children had at least one reported medical limitation/disability
- 33 schools recruited; 63 classroom teachers engaged to implement in the school setting; 34 PE teachers participated
- 13 Community Health Workers implemented home setting program with families

Measures

- Survey items assessing physical activity knowledge, attitudes, and skills development and environmental support of physical activity
- FITBIT outcomes for one-week physical activity
- Demographics and medical history

Procedures

- Student-parent dyads recruited from participating schools.
- Consented families completed baseline, mid-year, and final year surveys
- Randomized to receive one of three arms: control; school intervention; or family intervention during academic year

Statistical Analyses

- MANOVA to examine differences in children's physical activity based on intervention group
- Paired sample t-test to examine differences in physical activity at baseline based on children's medical history

Results

- Intervention effects were comparable to control changes over time in terms of children's physical activity
- Children with medical limitations engaged in less physical activity than their peers
- Children with medical limitations (CML) were less involved in school sponsored sports than peers who did not have medical conditions (18% vs 62% of children; $p < .001$).
- A considerable proportion of CML's were involved in non-school sponsored sports (62.5% vs 86.9% respectively, $p < .01$).
- One-quarter of each group endorsed being active very often during free time (20.5% CML vs 24.8% peers);
- A considerable proportion of both groups (4.5% among CML vs 10.1% peers) endorsed being sedentary for all/most of free time

Conclusions

- Children with medical conditions had less PA than peers, but were engaging in non-school structured play.
- Children's perceptions of their use of free time were similar regardless of ability
- Parent support was similar across groups highlighting two messages: 1) families are incorporating activity within schedules; and 2) children receive similar parental support for activity
- Opportunities exist to increase support and awareness among others to incorporate more activity into their schedules when possible.
- BUT – very few children with disabilities, overall, participated in opportunity

Next Steps

- Incorporate more tailoring opportunities for varying abilities in intervention materials
- Emphasize importance of physical activity for all
- Increase access to appropriate physical activity

Tailored Activate! Toolkit and Supporting Materials

- Modified Activate! school and home activities for individuals with disabilities
- Toolkit plus on-line activities for facilitators and individuals of all ages
- Resources for individuals with disabilities on exercise
- Adapted exercise activity cards
- Additional exercise equipment for individuals with disabilities

References

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PHYSICAL ACTIVITY

TOOLKIT

A Guide for Implementing Physical Activity for Children and Adults



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TOOLKIT

A Guide for Implementing Physical Activity for Children and Adults with Disabilities

