Integrating Physical Activity With Academics: Evaluation of the Efficacy of the Move for Thought Pre-K Curriculum

Introduction

- Preschoolers should get at least 60 minutes of structured physical activity during each day according to the 2008 Physical Activity Guidelines.
- Physical activity-integrated curriculums have shown to have positive effects in early learning environments and be enjoyable for students.
- Attention, behavioral control, and social-emotional skills are important for the whole-child development.
- Executive function skills are a stronger predictor of school success, more than IQ tests and standardized tests.
- This is an effective way to get children active during the day while still maintaining student engagement and classroom schedules.
- Move for Thought focuses on whole-child development to aid in future school success.

Methods

The purpose of this study was to evaluate the feasibility and effectiveness of physical activities integrated in the preschool classroom.

- 8-week intervention of 8 classrooms with children ages 3-5 years old in early childhood centers
- Social Skills, Attention and Behavioral Control rating scales completed by teacher
- Motor and social perceived competence picture scales and an inhibition computerized task assessed with children individually

Components of the Integrated Curriculum

- Choices
- Social Interactions
- Executive Functions
- Music
- Assessment based on State Standards
- Variations for progression
- Integration of PA with books/academics

Results

- High adherence ($M = 98\% ; 84–114\%$)
- Physical activities averaged $13.47 \pm 3.62$ minutes of active sessions per day
- Significantly larger improvement on attention for intervention group regardless of gender [$F(1,235)=12.08, p=0.001, r^2=0.05$]
- The improvement in attention was larger for children under 4 years of age [$F(1,235)=5.32, p=0.022, r^2=0.02$]
- Similar effect for behavior control with marginally significant interaction with gender showing stronger effect for females

Conclusions

- The curriculum is feasible to use in preschool classrooms, and the activities are enjoyed by students and teachers.
- There is a significant improvement in attention.
- More program training for teachers would be beneficial.