Society of Behavioral Medicine Position Statement: **School-based physical activity improves academic achievement**

(MAY 2014) *By Joanna Buscemi, PhD, Angela Kong, PhD, Marian L. Fitzgibbon, PhD, University of Illinois at Chicago, and Russell R. Pate, PhD, and Dawn K. Wilson, PhD, University of South Carolina; on behalf of the Society of Behavioral Medicine Health Policy Committee**

The Society of Behavioral Medicine recommends that elementary schools provide as many of the recommended 60 minutes of moderate-to-vigorous physical activity during school hours as possible.

Introduction

Physical activity helps school-aged children stay fit and healthy,[1] but there are additional benefits: **Physical activity may boost grade point averages and standardized test scores**.[2-6]

There is growing research that physical activity can improve academic achievement because it:

* Promotes better oxygen flow to the brain[5]
* Increases levels of neurotransmitters[5] associated with increased mood and decreased stress[5]
* Improves neuroplasticity (e.g., growth of brain cells)[3, 7-10]
* Improves executive function[11] which improves attention and time on task in class[12]

Incorporating physical activity into the school day results in positive outcomes. Here are examples of effective programs:

* Brief bursts of classroom physical activity breaks[13,14]
  - Improve response time and accuracy on cognitive tasks both during and after physical activity
  - Longer bouts of physical activity are associated with the best cognitive outcomes
* A curriculum that incorporates physical activity as a means for learning[15, 16]
  - Improves attention and reading, math, spelling, and composite scores
* Increasing time or physical activity in recess and/or physical education classes[17]
  - Improves reading test scores
  - Does not negatively impact other academic outcomes

The Problem

Despite documented benefits of physical activity on academic achievement and health, elementary schools provide little time for it. Results from two nationwide studies found that:

* Only 4% of elementary schools provide daily physical education[18]
* Less than half of US schools offer recess[19]

Schools may limit physical education or recess to maximize academic instruction time, in an effort to raise standardized test scores. While academic instruction improves test scores, so, too, does physical activity. Eliminating or reducing physical education and recess as a strategy to improve test scores is unnecessary and counterproductive.[20] Moreover, limiting physical activity squanders an opportunity to improve children's health.

School-based Physical Activity: A Key Opportunity

Though schools should not be expected to provide all of children's physical activity, research demonstrates that most children aren't meeting physical activity guidelines.[21] This suggests that while they *could* be physically active before and after school – by and large, children are not.

* Experts recommend that school-age children engage in 60 minutes of moderate-to-vigorous physical activity daily.[1] Such levels reduce excess weight gain and risk factors for cardiovascular disease[1]. Fewer than half of school-age children meet this guideline.[1] Schools are uniquely positioned to help children engage in higher levels of daily physical activity.

Starting *early* or creating elementary school environments that encourage and allow for physical activity time is especially critical:

* Physical activity levels sharply decline as children age[21]
* Only 9% of adolescents spend 60 minutes in daily physical activity[21]

Summary and Recommendations

Children should engage in 60 minutes of daily physical activity to ensure physical fitness and improve general health. While more research is underway to determine how much daily physical activity is necessary to improve academic achievement, given the positive relation and the unique capacity of schools to improve children's health[22, 23] we recommend that:

Elementary schools provide as many of the recommended 60 minutes of moderate-to-vigorous physical activity during school hours as possible. Activities can include:

* Classroom physical activity breaks
* Academic curriculum incorporating physical activity
* Physical education classes
* Active Recess

Additionally, schools can work within the school districts or state education departments to mandate minimum physical activity time for elementary school physical education.

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