

# UVM ScholarWorks

## A Community Model to Improve Physical Activity in Children

Item Type	Presentation
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Download date	2026-05-12 09:19:51
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Link to Item	<a href="https://hdl.handle.net/20.500.14849/1187">https://hdl.handle.net/20.500.14849/1187</a>



## Introduction

- The prevalence of overweight / obese children aged 2-5 in the United States is 21.2%. The National Center of Health Statistics estimates a 30% increase in the prevalence of obesity between 2001 and 2004.
- The Vermont Department of Health estimates that about 30% of low income children between 2 and 5 years of age are overweight or at risk of becoming overweight.
- Physical activity programming at child care centers is the most important predictor of physical activity in preschool-aged children, more important than the child's socioeconomic and demographic characteristics.
- Although the National Association for Sports and Physical Education offers some guidelines, there are no clear recommendations for physical activity in childcare settings in Vermont and nationwide.

## Objective

- Assess the physical activity of preschool-aged children attending Burlington Children's Space (BCS).

## Methods

### Parent questionnaire

- Parents' opinions about physical activity at BCS were assessed using questionnaires.

### Teacher questionnaire

- For each day during a one week period at school, BCS preschool teachers were asked to enter the number of minutes spent on a given activity and the percentage of students who participated in each activity.

### Workshop

- Following the initial teacher questionnaire, researchers held a workshop with BCS preschool teachers to discuss childhood obesity, the importance of offering a diversity of physical activities, and best practices to incorporate activity into the curriculum.

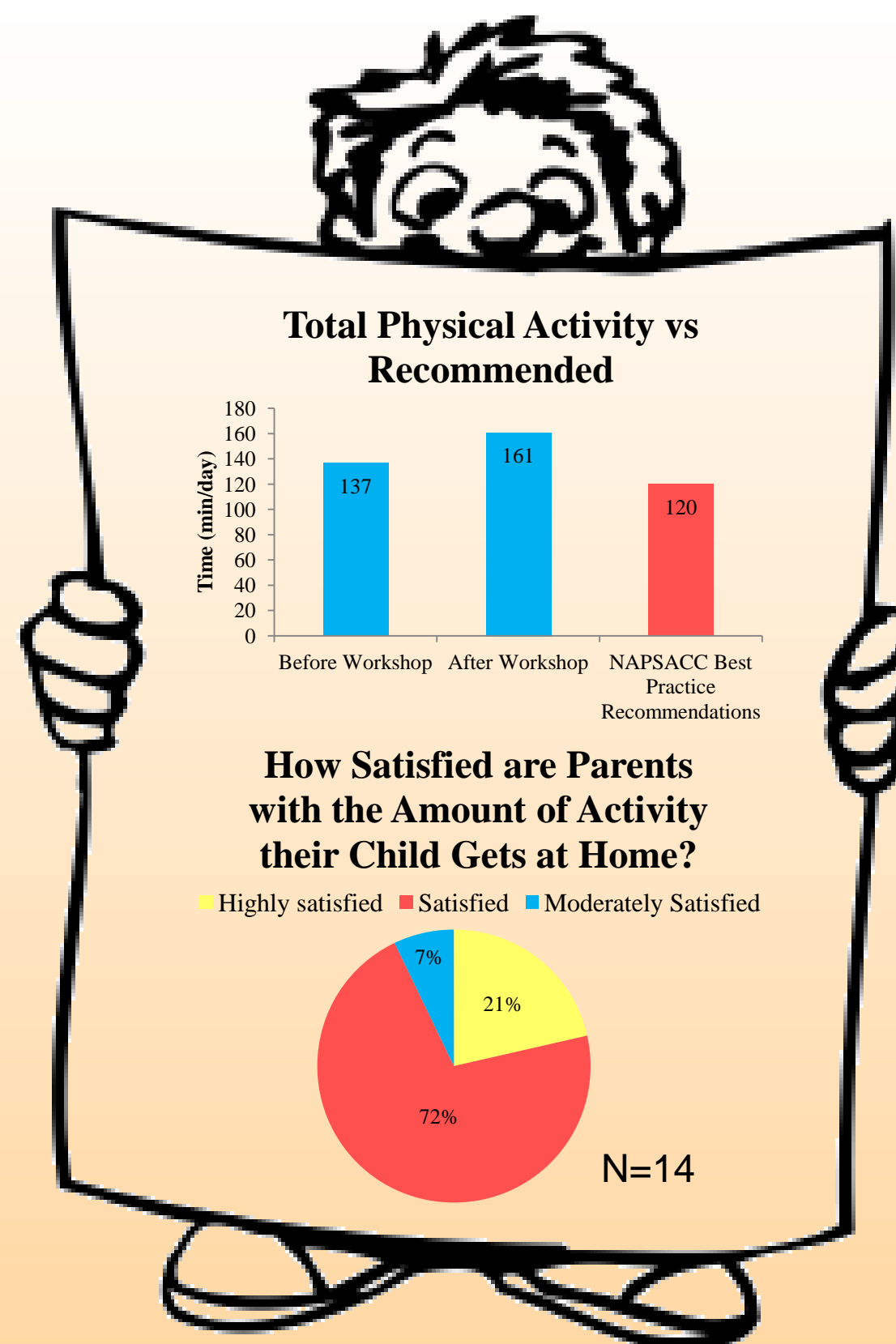
### Teacher post-workshop questionnaire

- Teachers again completed a physical activity questionnaire. All teacher questionnaire results were analyzed following the second survey to minimize bias.

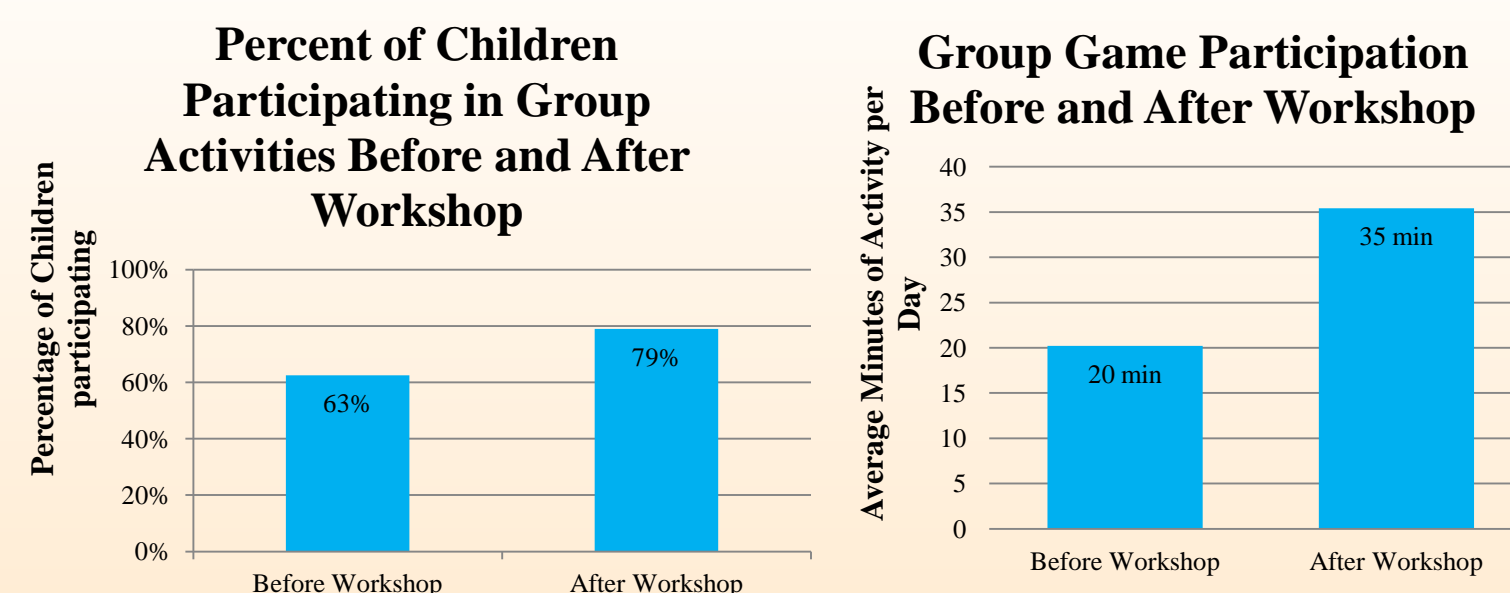


## How Does BCS size up?

BCS preschool children participated in an average of 136.5 min/day and 148 min/day of exercise in the first and second surveyed weeks respectively. This *exceeds* the 120 minutes of combined free play and structured activity time recommended by NAPSACC.



## How effective was our workshop?



Goals reported by BCS teachers after the workshop:

"Include ALL children in active participation."

"Encourage activity on the playground – play and facilitate more"

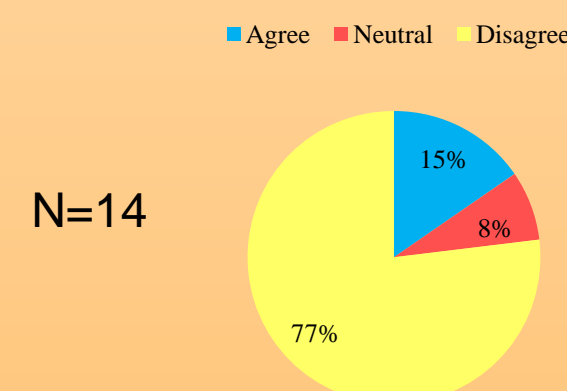
### Effect of workshop

Group games allow a teacher to encourage multiple types of exercise (bone strengthening, muscle strengthening, moderate intensity aerobic, and vigorous intensity aerobic exercise). Each type is important for a child's healthy physical development.

New and useful information from the workshop included the "need for bone strengthening activity"  
--BCS teacher

## Exercise Outside of School

### Winter Limits My Child's Activity

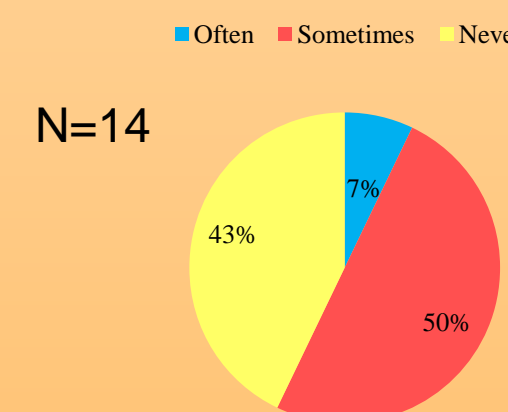


"We snowboard, sled, etc. and get MORE activity in the winter"  
--BCS parent

"[In the winter], we still walk everywhere and sled"  
--BCS parent



### How Often Do You Speak With a Pediatrician About Physical Activity?



"We really only see [our pediatrician] once a year, so we discuss other things"  
--BCS parent

## Conclusions

### Applicability

- While BCS was shown to meet or exceed requirements for physical activity in preschools, much of our research may be applicable to other preschools in the state and country in order to address the childhood obesity epidemic.

### Lessons from BCS:

For preschools failing to meet standards for physical activity, aspects of the BCS model that could be implemented include:

**Culture:** Creating a culture of physical activity at the childcare center.

- For example, BCS recommends children not attend school if they are too sick to go outside to participate in physical activity.

**Education:** Devoting resources to training and ongoing education of childcare center staff.

- Our workshop had an impact on physical activity at BCS and shows promise for future training opportunities.

**Creativity:** Finding creative ways to put physical activity into preschool curriculums.

- BCS has largely replaced the model of "recess" with more participatory "adventures," physically active outings that are interdisciplinary and highly participatory.

## Call to action

- Implement standards for preschool physical activity
- Improve physical activity screening in the health care setting.



### References:

- Vermont Department of Health. Obesity and Health Status Report. Available at [Healthvermont.gov](http://Healthvermont.gov). 2006 Accessed October 28, 2011
- Food Research and Action Center. Overweight and Obesity in the U.S. Available at <http://frac.org/initiatives/hunger-and-obesity/obesity-in-the-us/>. 2010 Accessed October 27, 2011.
- Pate RR et al. Physical Activity Among Children Attending Preschools. *Pediatrics*. 2004; 114: 1258- 1263.
- National Association for Sport and Physical Education. Active Start: A statement of Physical Activity Guidelines for Children from Birth to Age 5, 2<sup>nd</sup> edition. Sewickley, PA: American Alliance for Health, Physical Education, Recreation and Dance; 2009.
- McWilliams C et al. Best-Practice Guidelines for Physical Activity at Child Care. *Pediatrics*. 2009; 124: 1650 -1659.
- Centers for Disease Control and Prevention. Physical activity for everyone. Available at <http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html>. 2011. Accessed September 20, 2011.