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KIDDIE CATS ON THE MOVE NEWSLETTER



Welcome to the Newsletter!

We are excited to share information, updates, and program evaluation findings for the *Kiddie CATs* project. Thank you to our incredible community partners, teachers, children and families who make this work possible!

PHYSICAL ACTIVITY IS IMPORTANT FOR PRESCHOOLERS AND THEIR FAMILIES

Exercise can make you happier, improve your memory and focus, help children sleep better, and decrease risk for obesity and diseases such as Type II diabetes!

TIPS FROM THE KIDDIE CATS TEAM FOR STAYING ACTIVE

- Go for a 15-20 minute walk/jog around the block, in the park, or on the bike path.
- Turn on some music and have a dance party!
- Play a game of tag or chase.
- Limit screen time to one hour or less each day.
- Create a regular schedule for when your family will exercise together and HAVE FUN!



CHECK OUT OUR KIDDIE CATS ONLINE VIDEOS FOR MORE FUN WAYS TO MOVE AS A FAMILY!

Videos include "How To" videos for teaching and practicing motor skills, interactive physical activity story books, and full-length *Kiddie CATs* program videos. Videos can be accessed for free on our website: <https://www.uvm.edu/catsmove>

HOW DID KIDDIE CATS START? Meyer et al. (2020)

Following the successful implementation of a before-school physical activity program, *Children and Teachers (CATs) on the Move*, in a number of elementary schools, a new partnership was formed in 2016 between Head Start and the University of Vermont (UVM) with the shared goal of promoting physical activity among preschool children.

After piloting the CATs on the Move program in preschool classrooms, researchers at UVM worked to adapt the program to be developmentally appropriate for preschool-aged children. Program leaders and early childhood educators participated in focus groups to offer feedback for adapting the program. This information was systematically coded and analyzed, and results informed the development of *Kiddie CATs on the Move* (Version 1.0). A research article by Meyer et al. (2020) provides more information about this process. Some key changes included introducing a "Plan, Do, Review" sequence to the program structure, adapting program rules to be better suited for preschoolers, modifying games and activities, introducing visual supports and creating a social story to promote clear behavioral expectations.

Did you know?

The Institute of Medicine recommends preschoolers engage in at least 15 minutes of physical activity per hour or 3 hours per day!

UVM continues to incorporate ongoing feedback to inform modifications to the *Kiddie CATs* program. The program has now been utilized in participating Head Start classrooms and other greater Burlington-area preschool classrooms for the past six years!

PROGRAM EVALUATION FINDINGS

DOES KIDDIE CATS WORK? Hoza et al. (2021)



Kiddie CATs was specifically designed to help preschool children engage in higher levels of moderate-to-vigorous physical activity (MVPA), which includes activities such as jumping, running, and dancing. Thus, UVM researchers wanted to know, does this program work?

Researchers put accelerometer belts on children, which measure their levels of light, moderate, and vigorous physical activity. Findings showed that on days children participated in *Kiddie CATs* they had significantly more minutes of MVPA and had greater compliance with the Institute of Medicine (IOM) physical activity guideline, as compared to days when they did not participate in *Kiddie CATs*.

Another goal of this study was to examine whether physical activity is linked with children's school readiness. Results showed that the percentage of days in compliance with the IOM physical activity guideline was related to improvements in children's social-emotional, physical, language, cognitive, and literacy school readiness. Thus, findings support the notion that physical activity can be a useful strategy for improving young children's school readiness.

DOES PHYSICAL ACTIVITY IMPROVE CHILDREN'S BEHAVIOR?

Hoza et al. (2020)

Researchers at UVM also wanted to understand whether physical activity was related to improvements in children's behavior. They looked at four main types of behavior, including (1) Attention-Deficit/Hyperactivity Disorder (ADHD) behaviors, (2) oppositional behaviors, (3) mood, and (4) peer functioning. Additionally, researchers examined whether the relation between physical activity and improved child behavior depended on a specific cognitive functioning called "cognitive processing speed," which measures how quickly a child takes in, processes, and responds to information.

Findings from this study showed that engaging in greater levels of MVPA was related to improvements in children's oppositional behaviors. In addition, for children with lower levels of cognitive processing speed, MVPA was also linked with improvements in ADHD behaviors and peer functioning. These results suggest that physical activity may be a particularly useful strategy for reducing ADHD behaviors (and associated challenges) for children who have lower processing speed at the start of the preschool year.



Have questions about what you read or want access to the full research articles? Email us at: catsmove@uvm.edu.

Citations

Carson, V., Lee, E. Y., Hewitt, L., Jennings, C., Hunter, S., Kuzik, N., ... & Tremblay, M. S. (2017). Systematic review of the relationships between physical activity and health indicators in the early years (0-4 years). *BMC public health*, 17(5), 33-63.

Hoza, B., Shoulberg, E.K., Tompkins, C.L., Meyer, L.E., Martin, C.P., Krasner, A., Dennis, M., Cook, H. (2021). Preschool physical activity guideline compliance and school readiness: A program evaluation. *Child Psychiatry & Human Development*, 52(4), 719-727.

Hoza, B., Shoulberg, E.K., Tompkins, C.L., Martin, C.P., Krasner, A., Dennis, M., Meyer, L. E., Cook, H. (2020). Moderate-to-vigorous physical activity and processing speed: Predicting improvement in ADHD symptoms in preschoolers. *Journal of Child Psychology and Psychiatry*, 61(12), 1380-1387.