

Study compares active video gaming to unstructured outdoor play

June 11 2015, by Tyra Haag





The increasing use of video games is often blamed for children's lack of interest in physical activity, but a UT study recently published in the *Games for Health Journal* suggests that active video games may actually be a source of moderate or intense physical activity in children five to eight years old.

"Our study shows video games which wholly engage a child's body can be a source of <u>physical activity</u>," said Hollie Raynor, director of UT's Healthy Eating and Activity Laboratory and associate professor of nutrition. "Previous studies investigating <u>active video games</u> had not investigated the energy expenditure of these games as compared to unstructured outdoor play. The purpose of the study was to compare energy expenditure to unstructured outdoor play."

Children between the ages of five and eight years old were given three accelerometers—one for the hip and one for each wrist. The accelerometers on the wrists were placed to better assess upper-body movement, which may be very different in outdoor play compared with playing an active video game.

During a three-week period, each child engaged in one active video gaming session and one unstructured outdoor playtime. Each session lasted 20 minutes, and participants could stop and rest at any point.

The outdoor play session took place on a playground with two grassy areas, a small paved area, a climbing tree, hula hoops, playground equipment, and an assortment of balls. Children were allowed to participate in any type of activity.



The active video gaming session took place with a forty-inch television and the Xbox 360 Kinect, a controller-free gaming system that incorporates the whole body in the game through motion sensors and skeletal tracking. The Kinect Adventures River Rush video game was selected for the study as it includes total body participation, requires no special set of skills to play, and was rated "E for everyone" by the Entertainment Software Rating Board.

Trained observers used the Children's Activity Rating Scale to record activity levels, and estimated <u>energy expenditure</u> was reported in minuteby-minute counts.

A significant difference between active video gaming and outdoor play was found for the accelerometer located on the hip of participants, with active video gaming having a greater percentage of moderate to vigorous intensity than unstructured outdoor play.

These findings suggest that active video games may be a good source of physical activity for younger children.

"The strengths of the UT study include the use of two measurement tools considered to be very accurate at measuring activity," said Raynor. "No one else has used measures with this degree of accuracy in comparing active <u>video gaming</u> with outdoor play in young children. We're not saying video games should replace <u>outdoor play</u>, but there are better choices people can make when choosing the types of video games for their children."

Provided by University of Tennessee at Knoxville

Citation: Study compares active video gaming to unstructured outdoor play (2015, June 11) retrieved 28 April 2024 from



https://medicalxpress.com/news/2015-06-video-gaming-unstructured-outdoor.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.