

Research Center looks at video game as tool for food allergy compliance

May 20 2016

Elizabeth McQuaid, Ph.D., a staff psychologist from the Bradley Hasbro Children's Research Center, is leading the Phase II trial of an interactive software game developed to help children with food allergies better manage allergy symptoms, social situations and proper food avoidance.

"Pediatric [food](#) allergy is a serious health issue that now affects approximately 4 to 8 percent of [children](#). Yet, very few resources for children exist to promote effective management strategies," said McQuaid. "Most resources targeting those with food allergies provide support through support groups or via the web, and typically focus on parents, with few resources designed for affected children."

To address this need, McQuaid's research team has collaborated with a virtual reality and software development company called Virtually Better, Inc. to create an interactive video game app for children between 8 and 12 years old with food allergies called "Food Allergy Adventure." The game's goal is to increase knowledge, improve self-efficacy to manage the disease, and ultimately reduce risk of serious allergic reactions.

The first phase of the study was an open trial format in which children and families provided feedback on the game itself. The study team has now enhanced the game content and expanded its size three-fold based on the feedback. In the first part of this trial, the game was only targeted toward children with peanut allergies, but now the game is also tailored to children with tree nut, milk and egg allergies.

The randomized trial will compare the game's efficacy versus standard education that a child might receive during an office visit with a physician or nurse practitioner. The research team can assess whether children learn more and feel more confident about managing their allergies by using the game.

"In the original game, each child progressed through virtual scenes structured to help them learn about food avoidance, symptom detection and reaction management," said McQuaid. "For example, a child might be offered a food item in the school cafeteria and need to negotiate pressure to accept 'trigger' foods. Now, based on the feedback from families about which social scenes would be most realistic to them, the second phase of the game offers, for example, a grandmother at a family party asking a child why he isn't eating the cookies she baked, or a child at an arcade having to choose safe foods from a food court menu."

The game - now compatible as an app for iPad and Android devices - also offers children a look inside a virtual food pantry to play a label-reading game to decide which foods are safe to eat. There are also interactive scenarios that address how to handle being bullied about food allergies, and games that teach how to identify the symptoms of a reaction.

The study will enroll 100 children in this next phase. Families will be asked to use the software for two weeks, either before or after an office visit with a study health care provider.

"Based on the success of the first version of this game, the project has now expanded using the amazing feedback from the many kids and families who previously participated. The game also includes parent interaction components that provide feedback to parents," says Margo Adams Larsen, Ph.D., director of research at Virtually Better, Inc. "Kids were a part of the development of this new version from the ground up,

including the voice actors. This really is a kid built [game](#) targeting a significant health issue. Researchers and developers are excited to trial this next version to get more feedback to make bringing this product to final commercialization possible."

Provided by Lifespan

Citation: Research Center looks at video game as tool for food allergy compliance (2016, May 20) retrieved 8 May 2024 from <https://medicalxpress.com/news/2016-05-center-video-game-tool-food.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.