Internet helps ensure mother knows best when it comes to preventing childhood obesity
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Never underestimate the power of Mom when it comes to influencing children's health.

University of Cincinnati research explains how motherly influence could be even more effective when supported by Web-based parent education programs.

Adam Knowlden, a former doctoral student at UC and current assistant professor in the University of Alabama's Health Science Department, hopes his research can better prepare moms to keep their kids from joining the rising ranks of America's obese children.

"Addressing this problem of childhood obesity needs to start in the home environment and preferably with children at younger ages," Knowlden says. "This research shows the Web is an effective way to help some parents. It's something that should be capitalized on from a public health perspective."

Knowlden will present his team's research "Impact Evaluation of the Enabling Mothers to Prevent Pediatric Obesity Through Web-Based Education and Reciprocal Determinism (EMPOWER) Intervention" at the American Public Health Association's (APHA) 141st Annual Meeting and Exposition. This year's event, titled "Think Global, Act Local: Best Practices Around the World," will be held Nov. 2-6 in Boston. The meeting typically draws more than 13,000 health professionals each year. The APHA supports efforts to assure community-based health promotion and disease prevention activities and preventive health services are universally accessible in the United States.

Knowlden's novel EMPOWER intervention used a Web-based delivery method to help mothers better understand four behaviors associated with childhood obesity: consumption of fruits and vegetables; physical activity; consumption of sugary beverages; and screen time.

Mothers in the pilot study used special software to access the content of the EMPOWER program. Through the Internet, mothers were given healthy recipes, strategies for grocery shopping, techniques for better communicating with their children, tips for involving their children in meal preparation and other advice. Knowlden says some participants remarked that lessons in the program involved information they felt they should have known but didn't.

Knowlden also stressed how the convenience and community aspects of the program helped boost program completion rates. Giving participants the ability to access the program from their own homes at convenient times was an advantage over attending a meeting at a set time and that required travel. And the community-building and interactive components of EMPOWER, such as online discussion boards, helped reduce feelings of isolation some participants might have had.

And ultimately, the program achieved positive results.

"We found that the experimental EMPOWER group and the standard care control group increased physical activity and reduced sugary beverage consumption and screen time. However, only the EMPOWER program improved children's fruit and vegetable intake," Knowlden says of the study done during his time at UC. "Moms were really interested and gave a lot of good feedback. We were able to change the home environment because of this Web-based program."

The Centers for Disease Control and Prevention
note that childhood obesity has more than doubled in children in the past 30 years. The CDC also reports that children who are obese are likely to be obese as adults and are therefore more at risk for adult health problems such as heart disease, type 2 diabetes, stroke, several types of cancer and osteoarthritis.

"Many of the chronic diseases we have today are basically lifestyle related," Knowlden says. "We're showing that targeting behaviors that we know protect against childhood obesity will stick with children their whole lives when developed at young ages. Addressing those behaviors in the home environment is one of the key focal points and using the Web is an effective method for achieving that."

**More information:** Knowlden, a 2013 graduate of CECH's Health Promotion and Education doctoral program, is also leading two other research presentations that will be given at the APHA meeting:

"Improving planning of web-based community health interventions through human interaction and sense of community"

"Physical activity measurement in health promotion and education research"

Provided by University of Cincinnati


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