

Smartphones may aid in dietary self-monitoring

September 10 2014

The ability and consistency in monitoring one's diet, but not dietary quality, improves with the use of smartphone applications, according to new research by Arizona State University health scientists published in the latest issue of the *Journal of Nutrition Education and Behavior*.

Researchers Christopher Wharton, Carol Johnston, Barbara Cunningham and Danielle Sterner at ASU's School of Nutrition and Health Promotion authored the study.

The study compared the effectiveness of a popular smartphone application called "Lose It" for dietary self-monitoring and quality to methods such as entering dietary data on the memo feature on a smartphone and traditional paper and pencil entry during an eight-week weight-loss trial. Forty-seven participants were semi-randomly assigned to the three groups.

The use of smartphones has transformed life as we once knew it. According to the Pew Internet Project, more than half of American adults own a smartphone and almost a third of them "can't imagine living" without the device. The rapidly evolving landscape of applications has changed the way we socialize, conduct bank transactions, find our way to a friend's house, and track diet and exercise.

To mimic real-life use of the app, the group using "Lose It" received no dietary quality advice. Groups using the smartphone memo and

traditional paper and pencil methods received one-on-one nutrition counseling sessions and weekly reminders to eat healthy. A personalized diet plan was developed for these participants, supplemented by a suggested exercise plan.

"While no difference in weight loss was noted between the three groups, we found that participants who monitored their diet with either an application or the memo function on a smartphone were more likely to persist in the study and missed fewer days of entering dietary data, compared to those monitoring via paper and pencil," said Wharton, associate professor of nutrition at ASU's School of Nutrition and Health Promotion. "This may be due to ease of use."

"At the individual level, dietary self-monitoring has been identified as one of the most successful tools for managing body weight, so this is an interesting finding," said Johnston, professor of nutrition at the school.

Little research exists on the benefits of health-focused applications from the user's perspective, and on whether smartphone technology offers a superior platform for tracking and collecting health-related data. Much of past research has focused on the use of personal digital assistants or PDAs as digital mobile devices for diet monitoring.

"We hope that this study will lead to future research on apps that include feedback, not only in terms of calories but also in terms of overall quality, and how they could influence health outcomes," said Wharton. "We also hope that continued research will improve the choice of diet-based apps available to smartphone users, especially ones that focus on how using smartphones for diet tracking can influence diet choices over time."

More information: "Dietary Self-Monitoring, But Not Dietary Quality, Improves With Use of Smartphone App Technology in an

8-Week Weight Loss Trial," by Christopher M. Wharton, PhD; Carol S. Johnston, PhD, RD; Barbara K. Cunningham, MEd, MS, RD; Danielle Sterner, MS, RD (DOI: [dx.doi.org/10.1016/j.jneb.2014.04.291](https://doi.org/10.1016/j.jneb.2014.04.291)), *Journal of Nutrition Education and Behavior*, Volume 46/Issue 5 (September/October 2014)

Provided by Arizona State University

Citation: Smartphones may aid in dietary self-monitoring (2014, September 10) retrieved 19 April 2024 from <https://medicalxpress.com/news/2014-09-smartphones-aid-dietary-self-monitoring.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.