

## Mobile phone app study to help women quit smoking without gaining weight

May 23 2014, by Perlana Howard



Ask a woman who smokes why she hasn't quit, and she might say, "I don't want to put on weight." Her concern is not unfounded. Women are more likely than men to gain weight when they stop smoking – five to 10 pounds, on average.

A new study, led by Judith Gordon, Ph.D., associate head for research



with the Department of Family and Community Medicine at the University of Arizona College of Medicine – Tucson, will develop and test a mobile phone app designed to help women stop smoking while learning to eat more healthfully and increasing their physical activity.

Trying to quit smoking while changing eating habits and getting more exercise sounds like a lot to take on at once. "However, all these behaviors are interrelated," Gordon explained. "So if you change all of the behaviors together, you get a synergy that allows all this change to happen."

The concept is so novel and promising that even in this time of scarce federal research funding, the National Cancer Institute has awarded \$365,000 for the two-year project.

The two-phase study will create and test an Android app, developed by a multidisciplinary team that includes Gordon, Melanie Hingle, Ph.D., from the UA College of Agriculture and Life Sciences, Thienne Johnson, Ph.D., from the UA departments of Electrical and Computer Engineering and Computer Science, and Peter Giacobbi, Ph.D., from the College of Physical Activity and Sport Sciences at West Virginia University. Jim Cunningham, Ph.D., with the UA Department of Family and Community Medicine, is the project's methodologist and statistician.

The app includes guided imagery messages designed to boost positive body image, and persuade a woman that she can and will be stronger, healthier and happier by eating well, being physically active and not smoking.

In the first phase of the study, 10 to 20 Tucson-area women who want to quit smoking but are worried about weight gain will review the app and provide feedback.



In the second phase of the study, the app will be available free on the Google Play Store, and 50 women from across the country will test the feasibility and acceptability of the app.

The app provides audio recordings of guided imagery scripts that women will listen to every day. There will be scripts focusing on quitting smoking, eating nutritious foods and doing moderate physical activity every day. After using the scripts for several weeks, the women will be able to record their own scripts.

The women will be able to track their mood and cravings – whether for a cigarette or a burger and fries – every day. Each guided imagery script will teach the women to expect cravings and changes in mood, and assist them to overcome these challenges.

Participants also will record how long they were able to quit smoking, what happened to their weight and whether their body image changed. Gordon and the project's co-investigators will analyze that information to determine how and when the app is most effective at helping women quit smoking.

"And even if they do gain some weight, overall the benefits of quitting smoking far offset the few pounds they may put on," Gordon said.

Those results will be used to apply for funding for a larger National Cancer Institute study, in which women will be assigned randomly to either the UA-designed guided imagery app or another app, made to help with <a href="mailto:smoking cessation">smoking cessation</a> only.

There are hundreds of untested mobile phone apps designed to help people who want to <u>quit smoking</u>, Gordon said.

"A couple of studies have looked at using apps for changing one



behavior at a time. There have been a few studies testing in-person or Web-based <u>smoking</u> cessation plus <u>physical activity</u>, or diet, but not all three. This will be the first study not only to address all three behaviors through the use of guided imagery, but to deliver it all via a mobile app."

## Provided by University of Arizona

Citation: Mobile phone app study to help women quit smoking without gaining weight (2014, May 23) retrieved 4 May 2024 from <a href="https://medicalxpress.com/news/2014-05-mobile-app-women-gaining-weight.html">https://medicalxpress.com/news/2014-05-mobile-app-women-gaining-weight.html</a>

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