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ORIGINAL ARTICLE

Gender Differences in Diabetes Self-Management: A Mixed-Methods Analysis of a Mobile Health Intervention for Inner-City Latino Patients

Elizabeth Burner, M.D.,[1] Michael Menchine, M.D., M.P.H.,[1] Elena Taylor, M.A.,[2] and Sanjay Arora, M.D.[1]

Abstract

Background:

The benefit of mobile health (mHealth) on diabetes management among low-income, inner-city patients is largely unknown, particularly for Latino patients. TExT-MED (Trial to Examine Text Message for Emergency Department Patients with Diabetes) is a text message-based program designed to improve disease knowledge, self-efficacy, and glycemic control among low-income, inner-city Latinos. In phase I, 23 patients participated in an acceptability and feasibility study. Contrary to our model, there was no increase in knowledge despite increases in self-efficacy and healthy behaviors. In phase II, we performed a mixed-methods analysis to understand how TExT-MED achieved these seemingly contradictory findings.

Method:

We performed a qualitative analysis of focus groups with patients from phase I. We explored patients' receipt of health information from TExT-MED and other information sources. We used these qualitative findings to perform a mixed-methods analysis of the outcomes from phase I, reanalyzing the quantitative measures of self-efficacy, diabetes knowledge, and healthy behaviors.

Results:

We conducted two focus groups, one in English and one in Spanish. Through qualitative analysis, we found gender differences in information sources, dietary self-efficacy, and desired educational content. Applying this knowledge, we re-stratified phase I outcomes by gender and found differential changes in diabetes knowledge, self-efficacy, and behaviors. Men had increased self-efficacy while women showed increased knowledge.

Conclusions:

The efficacy of mHealth on diabetes management was affected by gender. Specifically, men and women differ in their dietary self-efficacy, information sources, and desired topics in future mHealth interventions. To achieve maximal impact, future mHealth interventions should be mindful of this gender difference.

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Author Affiliations: [1]Department of Emergency Medicine, Keck School of Medicine, University of Southern California, Los Angeles, California; and [2]Department of Neurology, Keck School of Medicine, University of Southern California, Los Angeles, California

Abbreviations: (mHealth) mobile health, (TExT-MED) Trial to Examine Text Message for Emergency Department Patients with Diabetes

Keywords: gender difference, Latino, mHealth, self-efficacy, text message

Corresponding Author: Elizabeth Burner, M.D., Department of Emergency Medicine, University of Southern California, 1200 N State St, Room 1011, Los Angeles, CA 90033; email address *eburner@usc.edu*