Qualitative Assessment of Diabetes-STAR: A Patient Portal with Disease Management Functions

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Abstract
Diabetes-STAR is a disease management program integrated with an online patient portal. Of 331 patients enrolled in a randomized trial, we interviewed 37 users about benefits, barriers and recommendations for program improvements. User preferences included 1) addressing differences in types of users, 2) sending out alerts when new information is available, and 3) providing more oversight of user diary data.

Introduction
eHealth interventions have shown promise in improving health, particularly those that have a behavioral science foundation. Diabetes-STAR is an online patient portal with disease management functions, modeled after an effective kiosk-based intervention for patients with type 2 diabetes. Unlike the kiosk program, Diabetes-STAR was not associated with improved self-care behaviors in a randomized trial of 331 patients. We conducted a qualitative analysis of participants to understand usage patterns and to guide future development.

Methods
We conducted semi-structured interviews with 37 participants who received access to Diabetes-STAR. Seven were non-users, nine used the program once, and 21 used the program more than once. Questions included benefits, barriers and recommendations for improvement of the program. We used a team-based “editing” style of analysis using written transcripts and ATLAS-ti® software (Scientific Software Development, Berlin, version 5.2).

Results
Three major user preferences for program improvements were identified: 1) address the differences in types of users—users who are currently guideline-concordant have different needs than non-concordant users, 2) send out alerts when new information is available, and 3) provide more oversight of the user diary data.

Discussion
Users liked many of the options offered by D-STAR. However, while goal-setting can be an effective strategy for those adopting new healthy behaviors, it was less pertinent for users who were focusing on maintaining adopted behaviors. Users noted that flagging new information would allow for more productive use of website visits. Users would also value increased involvement from their medical providers, through oversight and/or feedback when they enter information into the system.

Conclusions
These user preferences offer insights into design strategies for online chronic disease management programs. Further tailoring of self-management content and strategic addition of personal oversight may improve effectiveness while maintaining the efficiency of the program.

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References