
Abstract

Determining the Commercial Opportunity of a Skill-Based Mobile Application for Patients With Type 2 Diabetes: A Feasibility Test With Patients and Providers in a Healthcare Setting

Jessica Brueggeman*, Rob Peters*, BSci; Neala Havener*, BA, MA

MicroMass Communications, Inc., Strategy, Cary, NC, United States

* all authors contributed equally

Corresponding Author:

Jessica Brueggeman

MicroMass Communications, Inc.

Strategy

100 Regency Forest Drive, Suite 400

Cary, NC, 27518

United States

Phone: 1 919 256 2403

Fax: 1 919 851 3182

Email: jessica.brueggeman@micromass.com

Abstract

Background: More than 29 million people in the U.S. live with diabetes. It is imperative to find solutions that empower and help patients build skills to better self-manage their disease independently in their daily lives. MicroMass Communications, Inc. will conduct a feasibility study to determine the acceptability and usability of Time 2 Focus, a type 2 diabetes mobile application (app). The app incorporates evidence-based behavioral techniques and leverages gamification principles to drive patients' self-management behaviors. The experience guides patients through progressive skill-building activities related to real-world situations. Unlike current mobile apps for type 2 diabetes, Time 2 Focus goes beyond simple tracking and patient education. The app aims to improve patients' confidence in their ability to carry out tasks, build problem-solving skills, and make better decisions—ultimately leading to better clinical outcomes.

Objective: MicroMass has tested Time 2 Focus in a convenience sample of nine participants recruited from employer groups. To determine the acceptability and usability of the mobile app on a larger scale, MicroMass intends to conduct a feasibility study with FirstHealth of the Carolinas. FirstHealth serves a patient population that is disproportionately affected by type 2 diabetes. The study aims to determine if a type 2 diabetes mobile app to improve problem-solving skills is feasible and acceptable to patients/healthcare providers, and the optimal way to integrate the app into the process of care.

Methods: FirstHealth will identify a representative sample (n=600) of patients with type 2 diabetes from their existing electronic health record (EHR) system. These patients will be mailed a survey about type 2 diabetes self-management and mobile app use. MicroMass will invite participants to take part in interviews. The MicroMass research staff will conduct interviews with 6 to 12 patients and interviews with 6 to 12 healthcare providers who work with patients with type 2 diabetes. Patients and healthcare providers will provide feedback on Time 2 Focus and how it could be implemented into the process of care.

Results: Before the feasibility study, nine patients examined the usability of Time 2 Focus. From preliminary data, patients found Time 2 Focus to be helpful in managing their type 2 diabetes. Results from the feasibility study will direct next steps to help improve Time 2 Focus.

Conclusions: Solutions that can easily be integrated into the existing process of care and meet the needs of patients with type 2 diabetes are needed. The intent in developing and testing the feasibility of Time 2 Focus is to make the app commercially available to health systems as a cost-effective, scalable, and wide-reaching solution to improve clinical outcomes.

(*iProc* 2015;1(1):e10) doi:[10.2196/iproc.4694](https://doi.org/10.2196/iproc.4694)

KEYWORDS

self-management; type 2 diabetes; behavior change techniques; skill building; problem-solving; mobile application; process of care

(This is a conference paper presented at the Connected Health Symposium, Boston, 2015, which was not edited and is only lightly peer-reviewed).

Multimedia Appendix 1

Extended abstract.

[[PDF File \(Adobe PDF File\), 774KB - iproc_v1i1e10_app1.pdf](#)]

References

Edited by G Eysenbach, T Hale; submitted 14.05.15; peer-reviewed by D Bibeau, T Keyser, B Barnes; comments to author 18.06.15; accepted 20.07.15; published 27.10.15

Please cite as:

Brueggeman J, Peters R, Havener N

Determining the Commercial Opportunity of a Skill-Based Mobile Application for Patients With Type 2 Diabetes: A Feasibility Test With Patients and Providers in a Healthcare Setting

iProc 2015;1(1):e10

URL: <http://www.iproc.org/2015/1/e10/>

doi: [10.2196/iproc.4694](https://doi.org/10.2196/iproc.4694)

PMID:

©Jessica Brueggeman, Rob Peters, Neala Havener. Originally published in JMIR Mhealth and Uhealth (<http://www.iproc.org>), 27.10.2015. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in JMIR mhealth and uhealth, is properly cited. The complete bibliographic information, a link to the original publication on <http://mhealth.jmir.org/>, as well as this copyright and license information must be included.