

University of Massachusetts Medical School

eScholarship@UMMS

UMass Center for Clinical and Translational
Science Research Retreat

2017 UMass Center for Clinical and
Translational Science Research Retreat

May 16th, 1:45 PM


The Effectiveness of Tablet-based Application for Older Adults with Diabetes Mellitus Type II: A Pilot Study

Mohammad Alkawaldeh
University of Massachusetts Amherst

Et al.

Let us know how access to this document benefits you.

Follow this and additional works at: https://escholarship.umassmed.edu/cts_retreat

 Part of the [Endocrine System Diseases Commons](#), [Geriatrics Commons](#), [Nutritional and Metabolic Diseases Commons](#), [Telemedicine Commons](#), and the [Translational Medical Research Commons](#)

Alkawaldeh M, Cynthia J, Choi J, Marquard J, Ridgway J. (2017). The Effectiveness of Tablet-based Application for Older Adults with Diabetes Mellitus Type II: A Pilot Study. UMass Center for Clinical and Translational Science Research Retreat. Retrieved from https://escholarship.umassmed.edu/cts_retreat/2017/posters/11

Creative Commons License



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 3.0 License](#). This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.

THE EFFECTIVENESS OF TABLET-BASED APPLICATION FOR OLDER ADULTS WITH DIABETES MELLITUS TYPE II: A PILOT STUDY

Alkawaldeh Mohammad, PhD, MS, RN¹; Jacelon Cynthia, PhD, RN, FGSA, FAAN¹; Choi Jeungok, PhD¹; Marquard Jenna, PhD²; Ridgway John, PhD³
¹College of Nursing, ²College of Engineering, University of Massachusetts Amherst; ³Mass College of Art

Introduction: Advances in technological applications such as tablet-based computers is growing dramatically in the field of healthcare, as there is a considerable eagerness for mobile health interventions. Tablet-based interventions can have positive effects on both health and health service delivery processes (Free et al, 2013). Technological applications have been developed for a wide range of healthcare needs, including patient registration, data management, and self- management applications.

Background: The usefulness of technology and the powerful capabilities of technological applications have led to a significantly increased interest in finding novel approaches to support older adults' self-management. Self-management technological applications have been used in various contexts, and usability is key in sustainability and adoption of such technologies.

Theoretical Framework: The study will be guided by the self-management model of Maintaining the Balance (Jacelon, 2010).

Design: Quasi-experimental design.

Methods: Quantitative standardized measures will be used in this study. A purposive sample of 24 elderly patients with DMII will be recruited for the study. The descriptive and inferential analysis will be used to analyze the quantitative data.

Results: This is an ongoing project, and the study is currently in the recruitment and data collection phase. The final patient is expected to be enrolled by the end of March 2017. We hope to recruit approximately 24 patients to the study. Analyses will focus on usability attributes (effectiveness, efficacy, errors/simplicity, and overall satisfaction), perceived diabetes self-management and blood glucose level are the main outcomes.

Conclusion: A well-designed application with new features has the ability to provide more promising results regarding improving the quality of life, supporting informed decision making, improving communication with care providers, promoting active collaboration with care teams, encouraging self-care behaviors, problem-solving, improving health status, and improving clinical outcomes.

Contact:

Mohammad Alkawaldeh, PhD, MSN, RN
University of Massachusetts Amherst
Malkhawaldeh@nursing.umass.edu