Assessing the Efficacy of eHealth for Older Adults in Boston: A Qualitative Study

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Abstract

While health endures as a term to describe looking after oneself, looking after loved ones, and receiving care, the added component of eHealth, or telehealth, which is the combination of digital technologies and health services designed to provide improved care with the potential to change the way we live our lives. Although eHealth holds the promise of healthier living, an emerging theme in the literature suggests that the most likely benefits from eHealth are least likely to notice it. A key eHealth challenge is to understand the complex relationship between people to leverage emerging information and technology to improve health and healthcare. This study aims to examine the literature on the characteristics of eHealth adoption and use by the aging population in the US, focusing on the "Boomer" and the "Silent" generations. By studying this population born between 1925 and 1965 through a qualitative analysis of focus groups, observational eHealth library instructional training, and subsequent interviews, the characteristics and efficacy of eHealth acceptance and use for aging generations in Boston will be illustrated. Using eHealth, which emerges from the literature, as an indicator of online performance and information utilization, combined with the TAM analytical framework assessing perceptions and attitudes, this research will contribute a deeper understanding of the key barriers to the use of eHealth. The findings of this study will enhance the existing literature and inform future research.

Objectives

The U.S. Census Bureau predicts that in fifteen years, there will be 70 million individuals in the United States over 65 years or older. Older adults tend to have greater needs for health services and information (Xie, 2009). Additionally, research suggests that more than 70% of the population for health information prefer to receive information from print media. The year 2014 demonstrates that eHealth offers new opportunities for older adults to access health information, connect with providers and others, and manage their health. The purpose of this study is to:

- Gain a deeper knowledge of attitudes towards eHealth
- Identify potential external variables that influence use
- Assess how older adults perceive and are challenged by eHealth utilization.

Moving forward, public policy needs to address engagement of eHealth for older adults to realize the potential for improved outcomes and efficiencies in healthcare systems. This research identifies a gap in the literature of understudied characteristics for engagement in eHealth and through an exploratory qualitative study, seeks to generate theory to contribute to the existing literature and future research.

Conceptual framework & Methodology

The TAM analytical framework underlying this research plan is illustrated below and represents a decision 'core' as a pathway for actual system use. As major themes emerging from the literature strongly suggest that older adults use technology in different ways than younger people and experience numerous barriers in using technology (Fischer et al., 2014), this model is a meaningful approach for exploring the attitudes, perceptions and use for eHealth in this study. When users are presented with a new technology opportunity, many factors influence their decisions and the TAM model focuses on capturing attitudes, perception, and behavioral intent, as well as external variables as barriers to actual use. The framework will be applied to the multiple data collection methods in a three-stage research plan designed to capture known and unknown external variables, which act as barriers to actual systems use.

Data Collection Strategy

Focus groups: Two separate sessions of a group-interview process will be conducted for the Silent and Boomers generations. A moderator will conduct a standardized list of questions, which are drawn from the literature and are meant to establish previous experience with eHealth and the Internet, attitudes of participants, and perceived benefits and barriers to use. These themes are defined as follows:

- Technology Acceptance Model (TAM) / Technology Diffusion for Exploration
- Perceived Ease of Use
- Perceived Usefulness
- Perceived Trust
- Attitude Toward Use
- Behavioral Intentions

Observed eHealth literacy Training: This training-based approach is designed to assess participants' skills through a naturalistic observation of two groups simultaneously searching the World Wide Web for health-related information after a presentation by a single professional librarian instructor. Each group will be comprised of Boomers and Silent generations as well as males and females. The groups will meet in a computer learning lab located in the Healey Library on the UMass Boston campus and will be given an identical set of health questions to guide their activity and instructions for the 60-minute session. Browser tracking software such as SurotSoft will track computer URLs visited during the session for each participant and record screenshots of the websites visited.

Follow-up interviews will be conducted with the participants following the observational training. A short list of theory-driven items of inquiry will be pursued during brief interviews, to take place within one day of the experiment. Lines of open-ended questioning include participants' experiences, perceptions, attitudes, and future use. The interviews will take place at the OLLI facility on the UMass campus.

Validity: Quality control will occur on several levels. The informal session described above will act as a check on the data collected by researchers during the various stages of the study. Additional researcher interpretation checks occur at every stage of coding through a collaborative consensus by the research team. Findings are expected to extend an improvement for both groups in actual system use, even though there is a strong potential for an alternative outcome.
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While health care at all ages is a term used to describe the delivery of health care services, older adults face many challenges in accessing and utilizing these services due to the availability and quality of care in their communities. Developing age-friendly communities is a key strategy to improve health and well-being among older adults. This study will assess the efficacy of eHealth for older adults in Boston through a qualitative approach focusing on their experiences with health care services.

Conceptual Framework & Methodology

The TAM analytic framework underlining this research plan is illustrated below and represents a decision tree as a key pathway for action on the system. As more elderly are connected to the Internet, they become more connected to the Internet, and they are more likely to use their willingness and ability to connect to the Internet. The TAM model focuses on capturing attitudes, perceptions, and intentions as key variables in understanding eHealth adoption. The TAM model has been applied to a variety of contexts, including the adoption of technology in elderly populations, and its application in this study will allow for a deeper understanding of the key variables in understanding eHealth adoption.

Data Collection Strategy

Focus Groups: Two separate sessions of a group interview process will be conducted for the short and longer time frames. A moderator will present standardized questions, which were prior to the interview and are meant to establish a productive experience with eHealth and the Internet. The discussion will focus on the benefits and barriers to using the Internet. The results are derived below.

Technology Acceptance Model (TAM): Context for Exploration

- Perceived Ease of Use
- Perceived Usefulness
- Attitude toward Use
- Intention to Use
- Behavioral Intention

Data Collection Strategy

Observation of eHealth Literacy: This study is designed to assess participants’ skills through a naturalistic observation of two groups simultaneously conducting a survey and providing feedback. Each group will be comprised of a group leader and a group member, and the focus will be on the completion tasks located in the health center library. The data collected will be used to determine the impact of the intervention on the participants’ willingness to adopt eHealth technology and their willingness to adopt eHealth technology.

Results


References

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