Why Do People with Diabetes Adapt or Avoid eHealth?: A Qualitative Approach towards Examining Communication Patterns

Submitted to Southern States Communication Association

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Approximately 21 million people in the United States are diagnosed with diabetes, according to the Centers for Disease Control and Prevention (2014). Having diabetes is associated with considerably higher medical costs, even though there is a decreased life expectancy associated with the illness (Zhuo et al., 2014). About 20% of the nation's healthcare expenditures go to treating people with diabetes, demonstrating what a financial burden the illness is (ADA, 2013). Health disparities typically present themselves in specific populations, which are already burdened by other circumstances, creating a conglomeration of issues to overcome for the already disadvantaged populations. For example, rural diabetes patients typically cannot afford the glucose test strips to self-monitor glucose levels, as well as having avoided diabetes-related health screenings, like eye or foot examinations, which are "crucial to the detection of diabetes-associated comorbidities" (Massey et al., 2010, p. 20).

Healthcare alternatives, such as eHealth, have recently been examined as potential avenues of disseminating specific health-related information to disadvantaged populations, including racial/ethnic and rural populations. The Theory of Reasoned Action, the guiding lens for this proposed study, focuses on how subjective norms and attitude combined influence an individual's intention to perform a specific behavior, which then directly affect the actual behavior itself (Fishbein & Ajzen, 1975). The primary goals of this study were to examine through the lens of the Theory of Reasoned Action how people with diabetes use or would use eHealth technologies, to identify how their subjective norms developed with family members affect behavioral intentions regarding diabetes treatment options, including eHealth, and what barriers to using eHealth arise

based upon these norms. Accomplishing these goals is important because eHealth technologies can potentially bridge an existing gap of knowledge for people with diabetes, and may be of special interest to practitioners interested in diabetes management.

After approval by the institutional review board, nine interviews were completed using semi-structured interview guides. After transcription, the interviews generated 68 single-spaced pages of transcribed data. A phronetic iterative approach was utilized in order to analyze the data (Tracy, 2012). To examine RQ1, regarding how family norms affect behavioral intentions regarding diabetes, participants were asked questions about their family's attitudes and behaviors towards diabetes. To answer RQ2, on how the family system affected the formation of norms regarding diabetes, participants were asked a series of questions concerning how the family communication affects diabetes healthcare decisions. To investigate RQ3, which looked at how barriers play a role in the utilization of eHealth technology, the participants were asked questions regarding their knowledge of eHealth, how it might be helpful for diabetes treatment, and what concerns there were about eHealth.

The Theory of Reasoned Action has been often used in examining health behaviors, but this is among the first studies to use TRA qualitatively. Intentions towards diabetes self-care were greatly influenced by family members based on the communication between the patient and the family members, as has been previously shown as likely by Syrjälä, Niskanen, and Knuuttila (2002). Chronic illnesses present a particularly unique management aspect, as the majority of the care is done outside of the clinic. By including family members or friends, as supporters of the person with diabetes, at doctor's visits, it could increase the willingness of some to adopt usage of a specific eHealth technology as many people with diabetes also listen to advice from these supporters. eHealth technologies were mentioned as methods of self-management for many of

the participants, as previous research has found (Cotter, Durant, Agne, & Cherrington, 2014). Specific technologies included insulin pumps and continuous glucose monitors for both people with type 1 and people with type 2 as well as glucose meters. The participants, as a whole, found eHealth to be positive in their diabetes self-management, even necessary.

The current study validates TRA in health contexts. In particular, using TRA qualitatively expands its usage among communication scholars by providing depth other studies had yet to provide. Based on this qualitative study, it would be possible to further validate TRA by conducting a study quantitatively studying people with diabetes and their eHealth communication, adoption, and usage for diabetes management using TRA measures. This is important, as TRA focuses on intentions and behaviors, and has previously been tested using mediators and moderators, and leads to a more robust theory if used in both quantitative and qualitative ways. This study also complicates TRA, as findings implied that knowledge does not necessarily equate with better care. TRA is built on a rational paradigm, yet participants displayed an irrationality (e.g., stating “I have no concerns” then further describing concerns) which this study showed in living color.