

Letter to the Editor

In a doctoral program of research, rigor is continuously emphasized. This includes, but is not limited to, intervention fidelity. While many articles have been written to address this subject (Aranda, 2008; Conn, Rantz, Wipke-Tavis and Maas, 2001; McGuire, et al., 2000), *An Intervention Fidelity Framework for Technology-Based Behavioral Interventions* (Dabbs, et al., 2011) expands the discussion further by presenting the issue of technological-based interventions, i.e. using information and communication technology applications to promote behavioral outcomes. Not surprisingly, the incorporation of technology into nursing research has presented both opportunities and challenges. I believe we are at the precipice of a new era as we begin to incorporate tablet computers and virtual reality into health education, which makes this article, in my opinion, so cogent.

Dabbs et al. (2011) provide a succinct overview of their concerns: a lack of consistency in defining intervention fidelity, customization of evaluation, system quality vs. intervention fidelity, and significantly, the human factor or the relevance of technology acceptance. It is the latter concern that has received the least attention, and yet, may have the greatest impact on research outcomes.

The authors introduce a framework, the Technology Acceptance Model (TAM) that evaluates the variables that impact both the recipient's adoption of the technology-based intervention and enactment of health behaviors. This model is a widely accepted theoretical model in the Information Systems (IS) field and is an adaptation to the Theory of Reasoned Action and suggests that the acceptability of an information system is determined by perceived usefulness and perceived ease of use (Davis, 1989). Dabbs et al. (2011) operationalized the

concepts of this framework by evaluating the intervention fidelity of their mobile health technology tool (that they used with post lung transplant patients) through the use of the Perceived Usefulness (PU) and Perceived Ease of Use (PEU) scales which measure the construct of technology acceptance.

Unfortunately, the above description of the TAM was not presented in the article. Dabbs et al. (2011) presented only the strengths of the model. Although the model has been empirically tested and used extensively, the authors failed to mention that it has also been modified by many researchers, including the authors. Bagozzi (2007) offered a compelling commentary on the limitations of the TAM and an alternative paradigm for studying information technology adoption/acceptance/rejection. While I did not expect a detailed critique of the TAM model by the authors, I do believe that the concerns about this model should have been included in the discussion section so that a comprehensive perspective on technology-based interventions is addressed. Applying this rigor to all components of the research process will not only strengthen nursing research, but also, translate to better outcomes for health care recipients.

Respectfully,

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