



ABSTRACT:

STREAM: EVIDENCE-BASED PRACTICE – MEASURING THE VALUE

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Implementation & Evaluation of Vocera in a Canadian Acute Care Academic Hospital

Aims: Wireless technology in healthcare has been associated with communication-related improvements in workflow; however barriers to adoption exist. The purpose of this ongoing study is to assess perceptions and attitudes of staff in an acute care hospital toward the use of a wireless communication device (Vocera®). This presentation will review the implementation and research process, present research results, discuss lessons learned and outline ongoing and future implementation and research plans.

Methods: This study used a pretest posttest quasi-experimental design to assess facilitators and barriers to the adoption of new technology. The Theory of Planned Behaviour was used to assess staff attitudes and perceptions potentially influencing their adoption of Vocera®.

Results: Attitudes towards adoption varied by type of clinical unit and timing of assessment (pre vs. post implementation). Prior to implementation attitudes predicted adoption in the surgical unit and attitudes and perceived control predicted intent to use Vocera® in the intensive care unit. After implementation perceived control predicted intent to use on the surgical unit and attitude predicted intent to use in the neonatal intensive care unit. In the emergency department attitudes, subjective norms and perceived control predicted intent to use Vocera/Smartphone prior to implementation. Implementation is ongoing in the emergency department.

Conclusions: This study provides evidence that introduction of novel technology must account for user awareness and usability of the technology pre-implementation. Vocera® improved communication, was perceived to be of benefit, and has the potential to improve patient safety and work environments. This may also translate to reduction in healthcare resources.

BIO:

Elizabeth VanDenKerkhof RN, BScN, MSc, DrPH is an Associate Professor in the School of Nursing and the Department of Anesthesiology at Queen's University. Her research program focuses on the development and adoption of innovative technology at the point-of-care. She is part of an interprofessional research team that developed an electronic documentation tool for use on an Acute Pain Management Service. She is also the research lead on a health informatics team in the Kingston Hospitals. The team studies the implementation and adoption of electronic documentation and innovative communication devices (Vocera) at the point-of-care. The goal of Dr. VanDenKerkhof's research program is to facilitate the provision of comprehensive and timely information to improve decision-making at all levels of care.

Susan Hall RN BN is an experienced critical care nurse who has transitioned her focus to health informatics. She has completed three RNAO Fellowships and participated in a Change Foundation Grant project; all with a focus on electronic documentation and adoption of technology in healthcare. Susan is currently working to complete her Masters in Health Informatics through the University of Victoria and is employed at Kingston General Hospital as a consultant for clinical documentation.