

ABSTRACT:

STREAM: **EVIDENCE-BASED PRACTICE – MEASURING THE VALUE**

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Usability evaluation results of nurses' utilization of computerized clinical decision-support systems (CDSSs) at the point-of-care

Point-of-care technologies, such as CDSSs have the potential to improve nursing processes and patient outcomes by providing nurses with access to evidence-based resources, in real-time. CDSSs are used in adjunct to nurses' experiential and intuitive judgement and support clinical decision-making. However, evaluations that document feasibility and usability remain obscure.

This paper reported on usability issues identified from the study, "Evaluation of Mobile Information Technology to Improve Nurses' Access and Use of Research Evidence." Participating organizations were funded through the Ministry of Health and Long-Term Care PDA Initiative to purchase mobile devices. Decision-support resources, including a drug handbook, Nursing PLUS and the Registered Nurses Association of Ontario Best Practice Guidelines were made available.

Eleven nurses consented to be video and audio-taped while completing three tasks utilizing their mobile device. A modified Human Usability Checklist was completed. Video and audiotapes were analyzed using a coding scheme by Kushniruk & Patel. Main usability issues related to navigation problems (39) and overall ease of use, such as scrolling and typing errors (25 occurrences). Times to complete tasks varied with an average of 3 minutes 22 seconds. Usability evaluations identified problems associated with CDSS utilization.

The various levels of usability among participants identified the need for continued IT training and educational support. These findings document problems that organizations should be cognizant of prior to and during the implementation process. This will allow measures to be taken that address inhibitors to use, thereby improving the potential for successful CDSS implementation and sustainability

BIO:

Andrew Shantz graduated from McMaster University with a BSc.N in 2006. A strong desire to pursue research and administrative work motivated him to complete his Masters in Nursing at the University of Toronto in 2009. He currently practices nursing on a psychiatry unit at Sunnybrook hospital while completing research on usability testing with the University of Toronto.