ABSTRACT:

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

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Integration of Bio-mobility Information with a Point-of-Care Decision Support System for Safer Client Care

Purpose: Smart monitoring approaches offer solutions to monitor client safety and support independent living. However, their integration into mainstream health care and their potential to improve clinical care management need to be evaluated. The purpose of this study is to investigate the integration of 1) non-intrusive monitoring approaches, using sensors, and 2) a GPS-supported monitoring and alerting system to track clients' daily life events, with 3) a web-based software application that equips clinicians with handheld units that assist in the collection and utilization of client data, and provides feedback including suggested best practice guidelines tailored to the individual client's needs.

Method: Semi-structured interviews were conducted with three groups of home care clinicians: 1) nurses; 2) physiotherapists/occupational therapists; and 3) home care case managers.

A total of 20 home care clinicians were shown a variety of options for the application of monitoring technologies and asked to provide input on how these technologies might be used to support clinical decision-making.

Results: Home care clinicians described a variety of client scenarios in which the technologies could inform clinical care management, and discussed perceived limits to their use. They identified the types of information and data presentations that would be most informative for care management. Content analysis was used to describe common themes depicting use cases and boundary conditions. The study findings identified differences that reflect user's preferences and uses of the technology among the nurses, physiotherapists, occupational therapists and case managers.

Conclusion: The knowledge gained from the interviews provided valuable information about the feasibility and effectiveness of integrating bio-mobility information obtained through non-intrusive monitoring with communication technologies to support safer client care practices for home care clients.

BIO:

Winnie Sun graduated from the Bachelor of Science in Nursing program at the University of Toronto in 1995. She worked as a RN in the medical and palliative care unit at the Mount Sinai Hospital, and then later worked as a Home Care Case Manager at the Community Care Access Centre. After having received her Master of Nursing degree in Nursing Administration from U of T in 2002, she became a full-time faculty member for the BscN program at the Trent/Fleming School of Nursing at the Trent University. Winnie Sun is currently a second year doctoral student at the Lawrence S. Bloomberg Faculty of Nursing at U of T. Due to her employment background, she developed a special research interest in community health nursing. She is now actively involved in various research projects as a research assistant to explore the safety needs of home care clients and best practices of community health nursing.