Exploring the Perceived Acceptability of End-Users for an Innovative Technology-Enabled Model of Palliative Home Care

Sarah Ibrahim, RN, MN, PhD(student); Sandra Regan, RN PhD, Associate Professor; Lorie Donelle, RN PhD, Associate Professor

BACKGROUND AND RATIONALE

- Older adults constitute the fastest growing population segment in Canada; projections of 10.4 million by 2036 (Statistics Canada, 2010).
- Care required by older adults with multiple chronic conditions (MCC) and at the end-of-life places a significant strain and demand on the Canadian health care system (Fowler & Hammer, 2013).
- In response to the complex health conditions of older adults at the end-of-life and challenges in recruiting and retaining HCPs in Ontario (a province in Canada) a new and innovative technology-enabled model of home care, eShift, has been developed.
- eShift links Care Technicians as unregulated health care providers, who provide care in patients' homes to a remotely-situated directing registered nurse (DRN), through a smart phone application using real-time communication and documentation technology. The DRN monitors and directs patient care provided in collaboration with the care technician in real-time using technology that enhances care delivery for older adults and their family member caregivers.

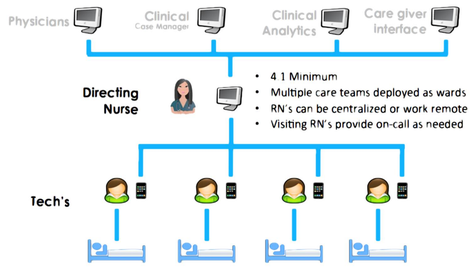
OBJECTIVES

eShift optimizes registered nurses with specialized knowledge and skill in palliative care to meet the needs of home care clients; however, there has been little opportunity to explore registered nurses' perceived acceptability of and intention to practice within technology-enabled models of home care.

Research Objectives:

- 1. To understand registered nurses' perceived acceptability and intention to practice within technology-enabled models of home care for the delivery of health services and care for older adults
- 2. To examine factors that facilitate or limit registered nurses' intention to practice within technology-enabled models of home care.

eShift model of home care*



METHODOLOGY / APPROACH

- **Design:** Exploratory study using a mixed methods, convergent (parallel) design will be used.
- **Data Collection Procedures:** Quantitative and qualitative data will be collected simultaneously. Qualitative data will be collected using adapted questionnaires exploring acceptability and intention to practice within technology-enabled models of care. Descriptive qualitative methods will be used to explore and understand the perceived acceptability and facilitators and barriers that influence registered nurses' intention to practice within technology-enabled models of home care. Interviews and focus groups will be conducted.
- **Target Population**: Registered nurses working in home care in the province of Ontario, Canada.

HYOTHESIZED FINDINGS

- Registered nurses will perceive technology-enabled models of home care, such as eShift, to be acceptable to practice within for the delivery of health services for older adults within the home care setting.
- Registered nurses will perceive that the delivery of home care services to older adults through technology-enabled models of home care has the potential to address the current and projected challenges facing the health care system.
- Facilitators (i.e., promotes interprofessional collaboration, communication, continuity of care, improved care delivery; meets needs of patients and family members) (Carretero, 2015) and barriers (i.e., training, availability of technological resources and support, and impact on existing workflow) (Egea & Gonzalez, 2011; Meier et al., 2013) will be identified that influence registered nurses' intention to practice within technology-enabled models of home care.

CONCLUSIONS

There is evidence supporting the benefits and effectiveness of integrating technology to support the delivery of health services and care. Registered nurses play a significant role in the delivery of such home care services for older adults living with acute and complex care needs. However, there is limited knowledge of registered nurses' perceived acceptability and intention to practice within such technology-enabled models of home care. This is the first study that explores acceptability and facilitators and barriers that influence registered nurses' intention to practice within technology-enabled models of home care. Findings will provide useful information to policy makers, health care agencies, and decision makers on how to introduce strategies and initiatives for successful integration and adoption by registered nurses of technology-enabled models of home care in practice.

References

Carretero, S. (2015). Technology-enabled services for older people living at home independently: Lessons for public long-term care authorities in the EU member states. *JRC Science and Policy Reports*. Retrieved from http://publications.jrc.ec.europa.eu/repository/bitstream/JRC96022/lfna27256enn.pdf

Egea, J. M. O., & González, M. V. R. (2011). Explaining physicians' acceptance of EHCR systems: An extension of TAM. *Computers in Human Behavior,* 27, 319-332.

Fowler, R., & Hammer, M. (2013). End-of-life care in Canada. *Clinical and Investigation Medicine*, 36(3), E127-E132.

Meier, C. A., Fitzgerald, M. C., & Smith, J. M. (2013). eHealth: extending, enhancing, and evolving health care. *Annual Review of Biomedical Engineering,* 15, 359-382. doi: 10.1146/annurev-bioeng-071812-152350

*Sensory Technologies. (2016). eShift. Retrieved from: https://www.eshiftcare.com/

Statistics Canada. (2010). Population projections: Canada, the provinces and territories. Ottawa: Statistics Canada. Retrieved from http://www.statcan.gc.ca/daily-quotidien/100526/dq100526b-eng.htm.

Contact Information: Sarah Ibrahim, sibrah25@uwo.ca

Acknowledgements

This work is supported by AGE-WELL NCE Inc. a member of the Networks of Centres of Excellence program. The authors would like to thank the South West Community Care Access Centre and Sensory Technology.