Digital health solutions

Formal Title: Reducing the burden of chronic disease through Digital Health
Method: Mixed methods (quantitative and qualitative) prospective cohort study with a health economic evaluation
Investigators:
Bolton Clarke: Dr Liz Cyarto (Principal Investigator), Dr Rajna Ogrin, Ms Lorenna Aguiar
Other: Associate Professor Duncan Mortimer
Funder/Funding: Perpetual Trustee Company Ltd – $1M
Duration: 2016 – 2019
Status: Ethics approval has been received. Participant recruitment has commenced.

Background:

The burden of chronic disease, particularly in our older population, threatens to overwhelm many aspects of the health system in Australia. As a major health service provider across the country, Bolton Clarke's reform agenda is addressing health system sustainability pressures by embracing new models of care and enabling technologies. Telehealth solutions provide effective delivery of complex care in a lower cost model, while reorienting the system for supported self-management. The program empowers and enables clients, promotes greater workforce utilisation and ultimately allows more services to be delivered to more people through the use of technology, clinical expertise and interdisciplinary teams.

Aims:

The overall aim of this study is to reduce the economic and individual burdens of complex chronic diseases (wounds, diabetes, continence, aged care and dementia) through the evaluation of telehealth remote specialist nurse consultancy (teleconsults) compared with usual care (face to face visits). For wound care (venous leg ulcers), new assessment and management software (Pixalere) will also be assessed. It is anticipated that the teleconsults will enable the delivery of more specialised services to more people, providing better care for Bolton Clarke clients.

Methods:

The study comprises the appraisal of teleconsults by Clinical Nurse Consultant (CNC) compared to usual care. Clients eligible for this study will include adults who are being seen by or referred to a CNC for venous leg ulcers, aged care and dementia, continence or diabetes care. Baseline data will be collected via survey during a visit to the clients' home. The same data will be collected every three months for one year via postal survey. The primary outcome measure for this project is the number of unplanned hospitalisations over the past three months. Secondary outcomes include the clients' health related quality of life, efficiency of care and cost-effectiveness (such as clients' out-of-pocket health expenses, Medicare claims and Pharmaceutical Benefits Scheme claims). For venous leg ulcers, additional data will be collected (such as pain, wound size, time to healing) in order to compare teleconsults plus Pixalere to teleconsults alone. Qualitative data will also be collected. A subsample of clients will be invited to participate in a brief interview to evaluate their experience and satisfaction with care provided. Nurses will be asked to take part in focus groups or interviews to explore their experiences of care delivery via teleconsults (and Pixalere).