Enhancing Care for Cardiac Patients with Diabetes Through Telehealth: Development of a Cross Cultural Intervention

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Clinical collaborators:
Australia: Royal Brisbane & Women's Hospital
Mater Health Services, Brisbane; Taiwan: TzuChi Hospital

This project has been registered with Australian New Zealand Clinical Trials Registry (ANZCTR): ACTRN: 1261101196932

Background
- Cardiac disease and type 2 diabetes are significant global health problems
- 17% Australians (3.4 million) have cardiovascular diseases comorbid with type 2 diabetes [1, 2]
- With Western lifestyle influences, similar prevalence of these diseases are found in Australia and in Taiwan [3, 4]
- Leads to:
  - Mortality rate: approx 30 Australian men and women everyday [6]
  - Healthcare costs, e.g. higher readmission rates (22% vs. 6%) [7]
- Our previous studies showed positive outcomes of self-management programs for cardiac patients and diabetes incorporating telehealth such as telephone and text-messaging (SMS) [8, 9, 2011, 2012]
- It is also important to consider the caring style [10, 2012]
Aims

To develop and test a Cardiac-Diabetes Self-Management Program incorporating telephone and text-messaging follow-up support for cardiac patients with diabetes in two different cultural contexts: Taiwan and Australia.

Methods

Design:
- A randomised controlled trial with block randomisation.
Methods

- **Experimental group:** received newly developed CDSMP + usual education provided in hospital
- **Control group:** received usual education provided in hospital

Settings

The study is an international collaborative project between:
- QUT, Institute of Health and Biomedical Innovation
- Royal Brisbane & Women’s Hospital, Brisbane, Australia
- Mater Health Services, Brisbane, Australia
- Tzu Chi Hospital, Taiwan

Sample

**Inclusion criteria**
- With type 2 diabetes for over 1 year
- 18 years and over
- Admitted to CCU
- Able to read and speak English
- Have a mobile phone

**Exclusion criteria**
- Unable to read and speak English
- Discharged home from CCU after 1 day
- Transferred to another hospital
- Hospital stay > 14 days
- On respiratory ventilator
Research Questions

Do patients receiving the newly developed T-CDSMP have:
- Higher self-management behaviour,
- Greater self-efficacy & knowledge,
- Better quality of life levels
at week 4 compared to patients receiving the usual education provided?

Self-efficacy model
adapted from McDowell et al. (2004)

Our previous studies
• Data analysis
• Preliminary results (not in IAHC conference)

Summary
Outcomes –
Challenges –

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References