

DTEXT Research Program

Diabetes prevalence is rapidly increasing, with type 2 diabetes predicted to be the leading contributor of non-communicable disease in Australia by 2020. It is anticipated that rates of type 2 diabetes will continue to increase if factors such as overweight and obesity, low physical activity and poor nutrition are not addressed. The majority of Australians with type 2 diabetes do not meet the guidelines for optimal diabetes management, and access to diabetes education is limited. This highlights the need for new interventions that can reduce existing barriers to diabetes education, attain greater population reach and support self-management strategies for people with type 2 diabetes.

Mobile phone text messages have shown promising results as an intervention for people with chronic disease. They have the ability to achieve high levels of engagement and broad population reach, whilst requiring minimal resources. There is however, no evidence on the effect of text messaging to improve the health of people with type 2 diabetes in Australia.

The DTEXT research program is a randomised controlled trial being conducted by the Illawarra Shoalhaven Local Health District and the University of Sydney. DTEXT is funded through the NSW Ministry of Health Translational Research Grants Scheme (2016), and thus is an example of *Population Health Research Strategy 1.2 (Fund and commission research)*. DTEXT also aligns with the Australian National Diabetes Strategy (2016-2020); NSW State Plan: Towards 2021; and Illawarra Shoalhaven Local Health District Strategic Plan 2012-2022.

The DTEXT research program aims to investigate if a 6-month text message intervention can lead to improvements in glycated haemoglobin (HbA1c) and diabetes self-management among people with type 2 diabetes.

This study will provide evidence on the effectiveness and cost effectiveness of a text message intervention to reduce HbA1c and enhance self-management of type 2 diabetes in the Australian population. Community dwelling adults (n=395) from New South Wales (NSW) were recruited, with the primary outcome being change in HbA1c at six months. Secondary outcomes include behaviour change for diabetes self-management, nutrition, physical activity, self-efficacy, quality of life and intervention acceptability.

Preliminary process evaluation data analysis (July 2019) indicates the majority of participants found the intervention helped them change behaviour and would recommend the text message program to people with type 2 diabetes.

Key stakeholders have been involved in the study design and planning stages to ensure that if DTEXT was successful, the program would align with priority areas, be feasible and acceptable for translation into the NSW Health's Get Healthy Information and Coaching Service and/or the Illawarra Shoalhaven Diabetes Service.

The DTEXT research program provides the following benefits to:

- Illawarra Shoalhaven Local Health District: capacity building of the Health Promotion Service through engagement in high quality research and professional development via PhD candidature, building links with key stakeholders such as the University of Sydney and University of Wollongong.
- NSW Health's Get Healthy Information and Coaching Service: DTEXT can provide an alternative method of program delivery through mobile phone text messages.
- People with type 2 diabetes: DTEXT will provide an additional model of care that can complement and enhance existing diabetes care through an equitable, accessible and supportive program delivered to people anywhere in Australia where there is mobile phone coverage.

Further reading

Waller K, Furber S, Bauman A, Allman-Farinelli M, van den Dolder P, Hayes A, et al. DTEXT—text messaging intervention to improve outcomes of people with type 2 diabetes: protocol for randomised controlled trial and cost-effectiveness analysis. *BMC Public Health* 2019; 19(1): 262.