

Development and evaluation of an internet-based mental health intervention for adults with type 2 diabetes

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INTRODUCTION

Diabetes mellitus [DM] is Australia's fastest growing chronic disease and an important public health problem. By 2025, it is estimated that at least 2 million Australians will have type 2 diabetes mellitus (T2DM) [1].

Recent research has emphasised the importance of good mental health in DM care. Depression and anxiety are common in people with DM and make it more difficult to carry out the self management and lifestyle changes required. At least one third of people diagnosed with DM suffer from clinically relevant depressive disorders [2], with depression in DM being associated with a poorer prognosis in terms of disease severity, complications and mortality [3].

Depression history, stress and "diabetes distress" are also associated with increased diabetes complications [4]. Given that coping styles can influence the risk of developing depression in people with T2DM [5], there is a need for brief psychological interventions for people with diabetes at risk of developing depression [6].

Expressive writing (EW) is defined as writing to explore one's innermost thoughts and feelings [7]. EW typically involves participants writing either about 'the most traumatic or upsetting experience' of their lives, or about a specific issue or medical condition, for 15-20 minutes on at least three occasions over a week [8]. EW has been associated with both physical and mental health benefits, including improvements in immune functioning, reduced blood pressure and reduced distress [8]

Preliminary evidence suggests that EW may be beneficial for people with diabetes, through reducing depressive symptoms and possibly improving glycaemic control [9,10]. However, it remains unclear as to whether *diabetes specific* EW or *general* EW is the most efficacious for people with T2DM.

AIMS OF CURRENT STUDY

- 1) To develop an Internet-based expressive writing intervention for adults with T2DM targeting diabetes-related distress
- 2) To evaluate the efficacy of two different forms of Internet-based expressive writing for adults with T2DM, compared to an active control condition, in reducing diabetes-related distress, improving mental health outcomes and improving glycaemic control

METHOD

This project will commence in April 2011, according to proposed design outlined in the flowchart below.

Participants: Adults with T2DM

Inclusion criteria: Have been diagnosed with T2DM for more than 6 months; resident of Australia with access to the Internet and an email address; depression score of < 16 on the CES-D

Recruitment:

Participants in Study 1 will be recruited from the Diabetes Services, Garvan Institute and St Vincent's Hospital, Sydney. Participants in the Study 2 and Study 3 will be recruited online from diabetes-related websites throughout Australia.

Outcomes:

Primary outcome : Diabetes distress (Problem Areas in Diabetes scale). Other outcomes will include depression and glycaemic control (HbA1c).

INTERVENTION

The Internet-based expressive writing intervention for T2DM will be delivered solely online. Psychoeducation will be provided about diabetes-related distress. Participants will be randomised to one of three writing conditions:

- Diabetes-specific EW** (writing about emotional topics related to T2DM)
- General EW** (writing about any emotional topics)
- Control** writing condition (emotionally neutral topic - time management)

Participants in all three conditions will be instructed to write online for 20 minutes, on four occasions, over one week. SMS and email reminders will be sent to participants in all three groups.

Study 1 (2011): Pilot trial of two forms of expressive writing for adults with T2DM

Study 2 (2011): Pilot trial of two forms of Internet-based expressive writing, compared to a control writing condition, for adults with T2DM

Study 3 (2012-13): RCT of two forms of Internet-based expressive writing, compared to a control writing condition, for adults with T2DM

Study 3 (2012-13):
 Online RCT of
 N = 1194 participants
 randomised to:

Diabetes-specific EW

General EW

Control writing

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