Study protocol: The human touch - the influence of human support on adherence to and outcomes of an online, lifestyle-based mental health intervention

Renfrew, M., Morton, D., Kent, L., Morton, J., Hinze, J., Beamish, P., Przybylko, G., Craig, B.
Lifestyle Research Centre, Avondale College of Higher Education, Cooranbong, NSW, AUSTRALIA

Introduction

Poor mental health is a deepening crisis, globally and nationally. Depression is the leading cause of disability worldwide [1] and, in Australia, psychological issues are the most common ailments doctors attend to [2].

Devising effective preventative and curative solutions are crucial. Lifestyle-based interventions have demonstrated efficacy for improving mental health, however, in a progressively digital culture, face-to-face interventions are being replaced by online and mobile alternatives. While online delivery may improve accessibility and be more scalable, it poses unique challenges. Frequently, adherence (i.e. engagement) is diminished, averaging between just 40-50 percent [3, 4]. Human support is recognised as an important influencer of adherence in online interventions [5]. Lower levels of human support are associated with lower adherence and reduced outcomes; whereas, supported interventions yield higher adherence and better outcomes [4, 6].

A randomised controlled trial in 2017 demonstrated that an online, lifestyle-based mental health intervention, the Live More Project, also known as the Lift Project, improved the mental health of an Australasian cohort [7]. However, the attrition rate of 24 percent, highlights the need to study the influences on participant adherence. In particular, research is needed to better understand the importance of human support in online interventions, including the level of human support required to optimise adherence and outcomes.

Aims

To determine the influence of graded levels of human support on adherence to and outcomes of an online, lifestyle-based mental health intervention.

Research Questions

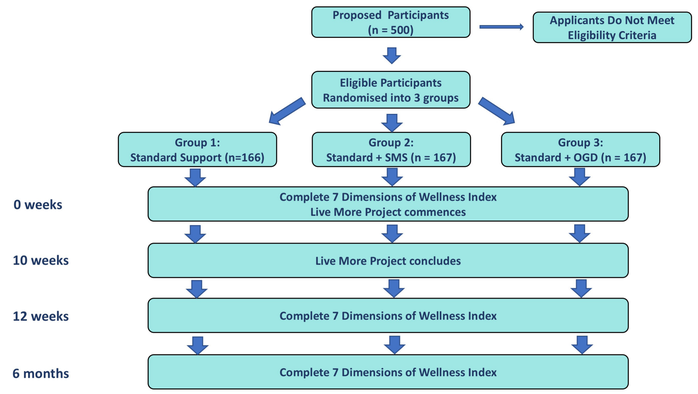
a) What is the influence of graded levels of human support on adherence to and outcomes of an online, lifestyle-based mental health intervention?
b) Does the level of human support required for optimal efficacy of an online, lifestyle-based mental health intervention vary according to age and gender?
c) What factors influence adherence to the intervention?

Study Design

A multi-arm, randomised comparative trial will be administered to 500 participants online. Participants will be randomised into three groups, differing according to level of human support:

Group 1: Standard - automated emails and helpdesk support
Group 2: Standard, plus personalised SMS support
Group 3: Standard, plus a weekly, synchronous, online group discussion (i.e. videoconference).

Study Design (Flow chart)



Intervention

The Live More Project, is a lifestyle-based mental health program designed to improve mental health and emotional wellbeing. During 10 weekly video sessions, Dr Darren Morton uses a Neuroscience perspective to teach a range of evidence-based strategies originating from the fields of Lifestyle Medicine and Positive Psychology. Participants are encouraged to implement new learnings through daily and weekly challenges, for which they are awarded points. Access to the program is provided through an online, password protected, private portal.

Measurement

Mental health will be measured using the 7 Dimensions of Wellness Index (7DWI) questionnaire on three occasions: baseline, post-intervention (12 weeks) and follow-up (6 months).

The questionnaire measures emotional, physical, social, spiritual, vocational, intellectual and environmental aspects of wellness, and combines demographic and lifestyle-related questions with various, freely available, validated instruments.

Outcome measures for this research will be drawn from three of the instruments within the 7DWI:

1. Short Form-36 Health Survey (SF-36) (Mental Health & Vitality)
2. Depression Anxiety & Stress Scales (DASS-21)
3. Flourishing Scale [8]

Domains that will be measured:

- √ Mental health
- √ Vitality
- √ Depression
- √ Anxiety
- √ Stress
- √ Flourishing

Outcome measures will be compared across the three groups and stratified analysis will be utilised to explore the influence of demographic variables.

Adherence will be explored through mixed methods. Paradata, from the web-based platform, will be used to measure the number of videos viewed and the challenges logged. Personal perceptions about adherence will be collected through additional questions at 12 weeks.

Significance of the Study

This study will contribute to an evidence-based rationale for intervention planning, to maximise program efficacy through optimal human support and adherence. The study will also inform the optimal levels of human support when administering online interventions to different demographic groups.

References

1. World Health Organization, Depression [Fact Sheet]. 2017, World Health Organization: Geneva.
2. The Royal Australian College of General Practitioners, General practice: Health of the nation. 2017, Author: East Melbourne, Vic.
3. Kelders, S.M., et al., Comparing human and automated support for depression: Fractional factorial randomized controlled trial. Behaviour Research and Therapy, 2012. 72: p. 72-80.
4. Richards, D. and T. Richardson, Computer-based psychological treatments for depression: A systematic review and meta-analysis. Clinical Psychology Review, 2012. 32(4): p. 329-342.
5. Mohr, D.C., P. Cuijpers, and K. Lehman, Supportive accountability: A model for providing human support to enhance adherence to eHealth interventions. Journal of Medical Internet Research, 2011. 13(1).
6. Andersson, G. and P. Cuijpers, Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. Cognitive Behaviour Therapy, 2009. 38(4): p. 196-205.
7. Przybylko, G., et al., Randomised controlled trial to investigate a multimodal online intervention to improve mental health in a faith based cohort. Unpulished raw data, 2018.

LIFESTYLE RESEARCH CENTRE

Avondale COLLEGE