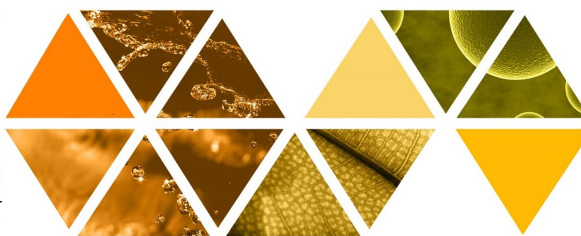




Australian Government
Australian Research Council

EI
2018
ENGAGEMENT
AND IMPACT



Engagement and Impact 2018

The Australian National University

ANU17 (HLS) - Impact

Overview

Title

(Title of the impact study)

MoodGYM - online support for depression and anxiety

Unit of Assessment

17 - Psychology and Cognitive Sciences

Additional FoR codes

(Identify up to two additional two-digit FoRs that relate to the overall content of the impact study.)

11 - Medical and Health Sciences

Socio-Economic Objective (SEO) Codes

(Choose from the list of two-digit SEO codes that are relevant to the impact study.)

92 - Health

Australian and New Zealand Standard Industrial Classification (ANZSIC) Codes

(Choose from the list of two-digit ANZSIC codes that are relevant to the impact study.)

85 - Medical and Other Health Care Services

Keywords

(List up to 10 keywords related to the impact described in Part A.)

Mental health

Depression prevention and treatment

Suicide prevention

Anxiety reduction

Free on-line automated therapy

Psychology

Psychiatry

General practice

Community

Schools

Sensitivities

Commercially sensitive

No

Culturally sensitive

No

Sensitivities description

(Please describe any sensitivities in relation to the impact study that need to be considered, including any particular instructions for ARC staff or assessors, or for the impact study to be made publicly available after EI 2018.)

Aboriginal and Torres Strait Islander research flag

(Is this impact study associated with Aboriginal and Torres Strait Islander content?)

NOTE - institutions may identify impact studies where the impact, associated research and/or approach to impact relates to Aboriginal and Torres Strait Islander peoples, nations, communities, language, place, culture and knowledges and/or is undertaken with Aboriginal and Torres Strait Islander peoples, nations, and/or communities.)

No

Science and Research Priorities

(Does this impact study fall within one or more of the Science and Research Priorities?)

Yes

Science and Research Priority	Practical Research Challenge
Health	Better models of health care and services that improve outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide greater value for a given expenditure.
Health	Improved prediction, identification, tracking, prevention and management of emerging local and regional health threats.
Health	Effective technologies for individuals to manage their own health care, for example, using mobile apps, remote monitoring and online access to therapies.

Impact

Summary of the impact

(Briefly describe the specific impact in simple, clear English. This will enable the general community to understand the impact of the research.)

MoodGYM is an interactive, automated online program designed to prevent or reduce symptoms of anxiety and depression. It is available free of charge to all Australians providing a low cost alternative to conventional face-to-face therapy. It is a vital service to people in rural and remote areas and others such as young males who are unlikely to access conventional therapy. It has been translated into five languages: Chinese, German, Norwegian, Dutch and Finnish. In 2016 in Australia, 25% of MoodGYM users have been referred by their GP. MoodGYM has users from every country in the world with more than a million people having used MoodGYM as part of their recovery from depression.

Beneficiaries

(List up to 10 beneficiaries related to the impact study)

People suffering from or at risk of depression: adolescents, adults and older people; rural and remote residents; students – school and university

Providers: GPs, psychiatrists, psychologists and other providers

Organisations: NGOs; health organisations; government organisations; insurance companies; schools/universities; farmers; consumer-run

Countries in which the impact occurred

(Search the list of countries and add as many as relate to the location of the impact)

Australia
England
Wales
Northern Ireland
Scotland
Norway
United States of America
China (excludes SARs and Taiwan)

Details of the impact

(Provide a narrative that clearly outlines the research impact. The narrative should explain the relationship between the associated research and the impact. It should also identify the contribution the research has made beyond academia, including:

- who or what has benefitted from the results of the research (this should identify relevant research end-users, or beneficiaries from industry, the community, government, wider public etc.)*
- the nature or type of impact and how the research made a social, economic, cultural, and/or environmental impact*
- the extent of the impact (with specific references to appropriate evidence, such as cost-benefit-analysis, quantity of those affected, reported benefits etc.)*

- the dates and time period in which the impact occurred.

NOTE - the narrative must describe only impact that has occurred within the reference period, and must not make aspirational claims.)

One million Australians experience depression annually and depression is the second leading cause of disability worldwide after back pain. However, only a minority of citizens with depression receive effective treatments with many reluctant to seek help due to stigma, a preference for managing the depression themselves, an unwillingness to take medication, a scarcity of trained professionals to deliver psychological treatments or a lack of access due to cost and geographical barriers. It has also clear that treatment alone cannot address the burden of depression with programs needed to prevent as well as treat depression.

In the late 1990s, two ANU researchers from the Research School of Psychology – Christensen and Griffiths – commenced research on the effectiveness of an online automated program (MoodGYM) designed to teach people self-help skills that they could apply to prevent and manage their symptoms of depression. The researchers reasoned that the Internet had the potential to deliver a cost-effective, accessible evidence-based self-help resource, which would enable users to access help anonymously, at any time of the day or night, regardless of geographical location.

MoodGYM was based on Cognitive Behavioural Therapy (CBT), a psychological therapy previously known to be effective for depression when delivered face-to-face. CBT is premised on the concept that it is not events that are responsible for our feelings but rather our thoughts and responses to these events and that by identifying and challenging unhelpful thoughts and modifying our behaviours it is possible to improve our mood. The multi-media MoodGYM program provides training in CBT using five modules, interactive exercises, automated feedback to the user and amusing fictitious characters to communicate the principals of CBT.

MoodGYM was publicly launched in 2001, and research continued. In 2007, 4 years after the first publication of gold-standard evidence (randomised controlled trial) of MoodGYM's efficacy, the Australian government funded ANU to deliver MoodGYM as a service to the Australian public. Since that time the Australian Department of Health has continuously funded the delivery of the program with the current service contract extending to mid-2019 and a recent offer to further extend the contract until 2021. Until 2016, the program was delivered by the e-hub group at ANU and was available cost-free to end users in any country in the world. In October, 2016, a spin-off company Ehubhealth was established to deliver the program which is now delivered free-to-end users in Australia and Germany and by paid subscription elsewhere in the world.

Impact on citizens in the community worldwide: Over 1 million users have registered with MoodGYM with registrants drawn from every country in the world. New registrants for each of the years from 2011-16 were as follows: 2011:99,778; 2012:105,478; 2013:107,147; 2014:97,073; 2015:138,999; 2016:138,313. These users were from all age categories from 15 years or younger to 75 years or older and 23.3% were from rural or remote areas. Approximately two-thirds (68.7%) of MoodGYM users were women, consistent with the fact that depression is twice as common in women as men. In 2016 in Australia, 25% of MoodGYM users were referred to the program by their GP; globally 41.6% of users were referred by a health professional.

Consistent with research trial findings, routine outcome data collected as part of the MoodGYM service has consistently shown that as a group spontaneous visitors who use the program demonstrate a significant reduction in depressive symptoms. The impact of the program is also illustrated by feedback provided by users (eg, "I've been recovered from depression now for nearly 10 months, and MoodGYM was a major part of my recovery. I still go to MoodGYM when I feel myself slipping again, and it picks me up every time, helping me slow down my thoughts and rationalise my thinking.").

Impact on practice and service: MoodGYM has provided an alternative model for the delivery of depression treatment and prevention services which formerly were provided using conventional face-to-face models. Professor Ian Hickie, former CEO of Beyondblue stated: "MoodGYM will prove to be one of Australia's greatest contributions to psychological medicine and the provision of effective treatments to thousands who would not otherwise have ever accessed real therapy." In this new e-mental health model of services, therapy can be accessed directly without the input of a health provider, after referral by a mental health service or other provider, or as an adjunct to professional treatment. Resources are available to assist health professionals with and without mental health training, teachers, youth workers and other support workers to use MoodGYM.

The impact of MoodGYM is further evidenced by its penetration among professional and other groups. A 2014 survey showed that two-thirds of 530 allied health professionals surveyed were aware of MoodGYM. Further, 56% of GPs surveyed indicated awareness of the program. A 2011 published study reported that MoodGYM was one of the three health websites recommended most frequently by psychiatrists. MoodGYM is recommended or

mentioned as an option in clinical practice guidelines (2011 beyondblue; 2015 RANZCP). It is also extensively cited as a resource in a diverse range of websites and in brochures and related materials. It had approximately 62,000 links from other webpages in 2013 (Google: Link) ranging from government, health services, and professional colleges, non-government organisations, the media and individual consumers.

Associated research

(Briefly describe the research that led to the impact presented for the UoA. The research must meet the definition of research in Section 1.9 of the EI 2018 Submission Guidelines. The description should include details of:

- what was researched*
- when the research occurred*
- who conducted the research and what is the association with the institution)*

The seminal study was a randomised controlled trial (RCT) published by ANU researchers in the BMJ in 2004 [Ref 1 below]. It was the first trial in the world to demonstrate that an automated Internet program could reduce depressive symptoms among members of the community. A positive effect was maintained over 12 months [Ref 2], the program was associated with a reduction in personal stigma [Ref 3] and it was cost-effective relative to conventional treatment [Ref 4]. Later, ANU researchers demonstrated that when administered in schools MoodGYM was effective in preventing anxiety in boys and girls and depression in boys [Ref 5]. They found that Lifeline callers with depressive symptoms receiving MoodGYM showed decreased depression, anxiety, and alcohol misuse and improved quality of life compared to their counterparts [Ref 6&7]. A Warwick U/ANU study demonstrated that MoodGYM led to reduced depression and anxiety and improved wellbeing among people with depressive symptoms who visited the UK National Health Service portal (Ref 8). A Tromsø U/ANU study reported a preventive effect of MoodGYM among Norwegian university students with depressive symptoms and demonstrated the cost-effectiveness of translating the program (Ref 9&10). A USyd/ANU (2010) study reported positive outcomes for the use of MoodGYM as an adjunct to general practice (2010) and American, Chinese, and ANU researchers have reported the program effective for depressed patients in China (2017).

FoR of associated research

(Up to three two-digit FoRs that best describe the associated research)

17 - Psychology and Cognitive Sciences

References (up to 10 references, 350 characters per reference)

(This section should include a list of up to 10 of the most relevant research outputs associated with the impact)

Christensen, H., Griffiths, K. & Jorm, A. F. (2004). Delivering depression interventions using the internet: randomised controlled trial. British Medical Journal, 328, 1-5. (BlueMood RCT)

Griffiths, K. M., Christensen, H., Jorm, A. F., Evans, K. & Groves, C. (2004). Effect of web-based depression literacy and cognitive-behavioural therapy interventions on stigmatising attitudes to depression: Randomised controlled trial. British Journal of Psychiatry, 185, 342-349. (BlueMood RCT)

Mackinnon, A., Griffiths, K. & Christensen, H. (2008). Comparative randomised trial of online cognitive-behavioural therapy and an information website for depression: 12-month outcomes. British Journal of Psychiatry, 2, 130-134. (BlueMood RCT)

Christensen, H., & Griffiths, K. M. (2007). Reaching standards for dissemination. MedInfo 2007. (Eds K. Kuhn et al.): IOS Press, pp 459-463. (BlueMood RCT – cost effectiveness study, p. 461)

Calear, A. L., Christensen, H., Mackinnon, A., Griffiths, K. M. & O'Kearney, R. (2009). The YouthMood project: A cluster randomized controlled trial of an online cognitive-behavioral program with adolescents. *Journal of Consulting and Clinical Psychology*, 77(6), 1021-1032. (YouthMood clustered RCT)

Farrer, L., Christensen, H., Griffiths, K. M., & Mackinnon, A. (2011). Internet-based CBT for depression with and without telephone tracking in a national helpline: Randomised controlled trial. *PLOS One*, 6(11), e28099. (Lifeline ECCO RCT)

Farrer, L., Christensen, H., Griffiths, K.M., & Mackinnon, A. (2012). Web-based cognitive behavior therapy for depression with and without telephone tracking in a national helpline: Secondary outcomes from a randomized controlled trial. *Journal of Medical Internet Research*, 14(3), 64-73. (Lifeline ECCO RCT)

Powell, J., Hamborg, T., Stallard, N., Burls, A., McSorley, J., Bennett, K., Griffiths, K.M., Christensen, H. (2013). Effectiveness of a web-based cognitive-behavioral tool to improve mental well-being in the general population: randomized controlled trial. *Journal of Medical Internet Research*, 15(1), e2. (UK National Health Service RCT)

Lintvedt, O. K., Griffiths, K. M., Sørensen, K., Østvik, A. R., Wang, C. E. A., Eisemann, M., & Waterloo, K. (2013). Evaluating the effectiveness and efficacy of unguided internet-based self-help intervention for the prevention of depression: a randomized controlled trial. *Clinical Psychology & Psychotherapy*, 20(1), 10-27. (Norwegian RCT)

Lintvedt, O. K., Griffiths, K. M., Eisemann, M., & Waterloo, K. (2013). Evaluating the translation process of an internet-based self-help intervention for prevention of depression: a cost-effectiveness analysis. *Journal of Medical Internet Research*, 15(1), e18. (Lifeline ECCO RCT) (Norwegian RCT)

Additional impact indicator information

Additional impact indicator information

(Provide information about any indicators not captured above that are relevant to the impact study, for example return on investment, jobs created, improvements in quality of life years (QALYs). Additional indicators should be quantitative in nature and include:

- name of indicator (100 characters)*
- data for indicator (200 characters)*
- brief description of indicator and how it is calculated (300 characters).)*

Name

Newspaper/magazine articles mentioning MoodGYM from 2011-2016

Indicator Data

71 (newspaper articles 69; magazine articles 2)

Indicator Description

A search using the keyword 'MoodGYM' was undertaken using the ANU Library Supersearch restricted to newspaper/magazines from 2011-2016. The indicator is the total number of articles returned.