

MoodGYM

MoodGYM is a free online program that aims to reduce mild to moderate symptoms of depression in adults by teaching them the principles of cognitive behavior therapy. The program is made up of five 20- to 40-minute modules, an interactive game, anxiety and depression assessments, a downloadable relaxation audio file, an online workbook for users to record their responses to quizzes and exercises and track their progress through the program, and a feedback assessment. The modules are designed to be completed sequentially over a 6-week period, and they focus on aspects of cognitive behavior therapy, including cognitive restructuring, the relationship between thoughts and feelings, behavioral activation, relaxation, and problem solving. At the completion of each module, users are provided with a summary of the module's key concepts, as well as any changes in the user's self-reported depression and anxiety symptoms. Throughout MoodGYM, users are encouraged to further develop the skills learned in the program by applying and practicing them in real-world situations. Although MoodGYM is intended for use by individuals seeking help with depression, it also can be incorporated as part of the therapy provided by a mental health professional.

Descriptive Information

Areas of Interest	Mental health treatment
Outcomes	Review Date: December 2012 1: Depressive symptoms
Outcome Categories	Mental health
Ages	18-25 (Young adult) 26-55 (Adult)
Genders	Male Female
Races/Ethnicities	Non-U.S. population
Settings	Home
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	MoodGYM was launched by the Australian National University Centre for Mental Health Research in July 2001. An upgraded site was released in September 2003, and the third revision (the current site) was launched in March 2008. MoodGYM has over 650,000 registered users from 222 countries and other world entities and from all U.S. States and territories. Evaluations of MoodGYM's implementation have been conducted in Australia, Canada, New Zealand, Norway, the United Kingdom, and the United States.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: Yes
Adaptations	MoodGYM has been translated into Chinese, Dutch, and Norwegian.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	IOM prevention categories are not applicable.

Quality of Research

Review Date: December 2012

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

[Christensen, H., Griffiths, K. M., & Jorm, A. F. \(2004\). Delivering interventions for depression by using the Internet: Randomised controlled trial. *BMJ \(British Medical Journal\)*, 328\(7434\), 265-269. !\[\]\(339a16584d5da0f0a3ca4e9ec17bf6a1_img.jpg\)](#)

[Mackinnon, A., Griffiths, K. M., & Christensen, H. \(2008\). Comparative randomised trial of online cognitive-behavioural therapy and an information Website for depression: 12-month outcomes. *British Journal of Psychiatry*, 192\(2\), 130-134. !\[\]\(a870788d6ed9b8fd294b7654a8c8526b_img.jpg\)](#)

Supplementary Materials

Centre for Epidemiologic Studies Depression Scale (CES-D): Summary Prepared by the Australian National University Centre for Mental Health Research

MoodGYM: Intervention Fidelity Information

Outcomes

Outcome 1: Depressive symptoms

Description of Measures

Depressive symptoms were assessed with the Center for Epidemiologic Studies-Depression scale (CES-D). The CES-D is a 20-item questionnaire that asks respondents to self-report the frequency of depressive symptoms experienced during the past week. Using a 4-point Likert scale ranging from 0 (rarely or none of the time) to 3 (most of the time), participants score each item (e.g., "I felt depressed," "I felt that everything I did was an effort"). Item scores are summed to produce a total score ranging from 0 to 60, with higher scores indicating a greater frequency of depressive symptoms. A total score of 16 or higher indicates the presence of clinically significant depression.

Key Findings

In a study conducted in Canberra, Australia, participants with symptoms of depression were randomly assigned to one of three conditions to receive services over 6 weeks:

- MoodGYM group.
- BluePages group, whose participants accessed BluePages, a psychoeducational Web site that provides users with information about depression.
- An attention control group, whose participants were called by a lay interviewer each week to discuss lifestyle and environmental factors that may have an influence on depression. The following topics were discussed: physical and artistic activities (week 1); education and hobbies (week 2); social, financial, and family roles (week 3); work habits and stress (week 4); physical health, medications, and pain (week 5); and nutrition and alcohol (week 6).

Online assessments were administered before the intervention (baseline), after the completion of the 6-week intervention (postintervention), and 6 and 12 months after the intervention (follow-ups). Findings included the following:

- From baseline to postintervention, participants who received MoodGYM and participants who received BluePages had larger decreases in CES-D scores for depressive symptoms than those who received the attention control ($p < .001$ and $p = .005$, respectively); these findings were associated with small effect sizes (Cohen's $d = 0.38$ and 0.29 , respectively). No significant change in CES-D scores was found between the MoodGYM and BluePages groups.
- From postintervention to the 6-month follow-up, participants who received MoodGYM had a larger decrease in CES-D scores for depressive symptoms than those who received the attention control ($p = .035$); this finding was associated with a small effect size (Cohen's $d = 0.27$). No significant changes in CES-D scores were found between the MoodGYM and BluePages groups and between the BluePages group and the attention control group.
- From postintervention to the 12-month follow-up, participants who received MoodGYM and participants who received BluePages had a larger decrease in CES-D scores for depressive symptoms than those who received the attention control ($p = .044$ and $p = .024$, respectively); these findings were associated with small effect sizes (Cohen's $d = 0.27$ and 0.29 , respectively). No significant change in CES-D scores was found between the MoodGYM and BluePages groups.
- From baseline to postintervention, for participants with a clinically significant depression at baseline (CES-D score of 16 or higher), those who received MoodGYM and those who received

	<p>BluePages had a larger decrease in CES-D scores for depressive symptoms than those who received the attention control ($p < .001$ and $p = .002$, respectively). No significant change in CES-D scores was found between the MoodGYM and BluePages groups.</p> <ul style="list-style-type: none"> • From postintervention to the 6-month follow-up, for participants with a clinically significant depression at baseline (CES-D score of 16 or higher), those who received MoodGYM had a larger decrease in CES-D scores for depressive symptoms than those who received the attention control ($p = .013$). No significant changes in CES-D scores were found between the MoodGYM and BluePages groups and between the BluePages and attention control groups. • From postintervention to the 12-month follow-up, for participants with a clinically significant depression at baseline (CES-D score of 16 or higher), those who received BluePages had a larger decrease in CES-D scores for depressive symptoms than those who received the attention control ($p = .042$). No significant changes in CES-D scores were found between the MoodGYM and attention control groups and between the MoodGYM and BluePages groups.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	3.4 (0.0-4.0 scale)

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	18-25 (Young adult) 26-55 (Adult)	71.4% Female 28.6% Male	100% Non-U.S. population

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see [Quality of Research](#).

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Depressive symptoms	4.0	4.0	2.3	3.0	3.7	3.4	3.4

Study Strengths

The CES-D has been widely used in research and has strong psychometric properties. Analytic approaches accounted for missing data, corrected for multiple tests, and included effect sizes. The use of random assignment to the study conditions addressed most issues of confounding. A conservative intent-to-treat analytic approach was included, as well as more sophisticated, mixed-effects modeling of the final longitudinal dataset.

Study Weaknesses

Fidelity assessments consisted of tracking the number of visits to or time spent on the intervention Web sites. No additional self-reported or observational data were available to determine how faithfully participants followed the exercises in each module.

Readiness for Dissemination

Review Date: December 2012

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information

regarding implementation of the intervention and the availability of additional, updated, or new materials.

Christensen, H., Griffiths, K., & Groves, C. (2004). MoodGYM training program: Clinician's manual. Canberra, ACT, Australia: Centre for Mental Health Research.

e-hub Assist Web site, www.ehubassist.anu.edu.au

Program Web site, <https://moodgym.anu.edu.au/welcome>

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see [Readiness for Dissemination](#).

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
4.0	4.0	3.8	3.9

Dissemination Strengths

The Web-based program includes modules that are designed to be used either by an individual alone or as an adjunct to mental health therapy. The program Web site is visually appealing and easy to navigate, and it uses clear language. A clinician's manual, which provides step-by-step guidance for structuring the program, is available for use by a mental health professional who wants to include the program as part of therapy. Users of the program can obtain assistance from the MoodGYM technical team via email. Additional support resources are available through the e-hub Assist Web site maintained by the Australian National University. The program includes anxiety and depression assessments and feedback assessments.

Dissemination Weaknesses

Users can advance through the program without completing the exercises in each module, which could affect overall fidelity to the model.

Costs

The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

Item Description	Cost	Required by Developer
Access to program Web site	Free	Yes
Access to e-hub Assist Web site for e-facilitators	Free	No
Clinician's Manual (PDF file)	Free	No
Online promotional materials	Free	No
Email support	Free	No

Replications

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.

[Christensen, H., Griffiths, K., Groves, C., & Korten, A. \(2006\). Free range users and one hit wonders: Community users of an Internet-based cognitive behaviour therapy program. Australian and New Zealand Journal of Psychiatry, 40\(1\), 59-62. !\[\]\(cbd8541a32dfc32f356f5c6c994b0a21_img.jpg\)](#)

[Christensen, H., Griffiths, K. M., & Korten, A. \(2002\). Web-based cognitive behavior therapy: Analysis of site usage and changes in depression and anxiety scores. Journal of Medical Internet Research, 4\(1\), e3. !\[\]\(d3e32d099174a7c248ec1f564ee4f69c_img.jpg\)](#)

[Christensen, H., Griffiths, K. M., Korten, A. E., Brittliffe, K., & Groves, C. \(2004\). A comparison of changes in anxiety and depression symptoms of spontaneous users and trial participants of a cognitive behavior therapy Website. Journal of Medical Internet Research, 6](#)

(4), e46. 

Christensen, H., Griffiths, K. M., Mackinnon, A. J., & Brittliffe, K. (2006). [Online randomized controlled trial of brief and full cognitive behaviour therapy for depression](#). *Psychological Medicine*, 36(12), 1737-1746. 

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. 

Hickie, I. B., Davenport, T. A., Luscombe, G. M., Moore, M., Griffiths, K. M., & Christensen, H. (2010). [Practitioner-supported delivery of Internet-based cognitive behaviour therapy: Evaluation of the feasibility of conducting a cluster randomised trial](#). *Medical Journal of Australia*, 192(11 Suppl.), S31-S35. 

Lintvedt, O. K., Griffiths, K. M., Sørensen, K., Østvik, A. R., Wang, C. E., Eisemann, M., et al. (2013). [Evaluating the effectiveness and efficacy of unguided Internet-based self-help intervention for the prevention of depression: A randomized controlled trial](#). *Clinical Psychology and Psychotherapy*, 20(1), 10-27. 

O'Kearney, R., Gibson, M., Christensen, H., & Griffiths, K. M. (2006). [Effects of a cognitive-behavioural Internet program on depression, vulnerability to depression and stigma in adolescent males: A school-based controlled trial](#). *Cognitive Behaviour Therapy*, 35(1), 43-54. 

O'Kearney, R., Kang, K., Christensen, H., & Griffiths, K. (2009). [A controlled trial of a school-based Internet program for reducing depressive symptoms in adolescent girls](#). *Depression and Anxiety*, 26(1), 65-72. 

Sethi, S., Campbell, A. J., & Ellis, L. A. (2010). The use of computerized self-help packages to treat adolescent depression and anxiety. *Journal of Technology in Human Services*, 28(3), 144-160.

Contact Information

To learn more about implementation or research, contact:

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Consider these [Questions to Ask](#) (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

- <https://moodgym.anu.edu.au/welcome>