









Research Evidence for Digital Mental Health

Digital mental health refers to the use of digital technologies and platforms to provide mental health support, intervention, and resources. With the increasing prevalence of digital devices and internet connectivity, digital mental health enhances the accessibility, affordability, and effectiveness of mental health care.

What is the evidence for digital treatments?

Psychological Treatment A structured, interactive intervention that treats a specific mental health issue

- In clinical trials, there is strong evidence that digital mental health treatments outperform inactive controls¹ and treatment as usual² in symptom reduction. Digital mental health treatment programs generally have good acceptability and users report high levels of satisfaction³.
- Digital mental health treatment programs with added therapist support perform as well as face-to-face treatment in clinical trials^{3, 4, 5}. There is strong evidence that therapist-guided digital mental health treatments are both cost and clinically effective in routine care⁶.
- Research shows that self-guided programs are also effective in symptom reduction^{7,8}, and are most suitable for people with sub-threshold anxiety and depression or mild symptoms².
- Digital treatments are also effective for people with moderate to severe symptoms^{2,9} or more complex mental health conditions, though therapist-support or blended care is recommended for these groups^{10,11}.
- The evidence for digital mental health treatments is most established for anxiety and depression^{2, 3, 12}. There is also growing evidence for a range of other mental health conditions including substance use^{1, 13}, PTSD¹⁴, and suicidality^{15, 16}.



- Free clinician supported online programs for stress, worry, anxiety, depression, PTSD, chronic pain, and chronic health conditions in adults.
- Over 80 clinical trials with over 9,000 people.
- Participants on average experienced a 50% reduction in symptoms of anxiety and depression, with most sustaining improvements for 3 months.

THIS WAY UP **11**

- Online clinician-guided and self-guided CBT treatment programs for anxiety, depression, insomnia, chronic pain, PTSD, OCD, social anxiety and stress.
- 40 RCTs and 24 effectiveness studies with over 4,000 people.
- 80% of individuals who complete a THIS WAY UP treatment show a significant improvement in their mental health.

What is the evidence for other service types?

Counselling Support for people to work through a problem or crisis and information on where to get further help

There is a strong demand for crisis intervention and social support that is provided by digital counselling services, with Lifeline, Australia's largest crisis support line, receiving over 1 million calls annually ¹⁷. There is evidence that crisis phone lines reduce short-term distress ¹⁸, and immediate suicidal urgency ¹⁹, and call-back services may improve smoking cessation rates ²⁰. While the evidence for counselling phone lines and online counselling in reducing mental health symptoms is limited, most are not primarily designed for symptom reduction ¹⁸.











Symptom Management and Wellbeing Tools Tools that can play an active role in prevention or interventions but are not designed to serve as a complete treatment.

The evidence regarding digital tools, which may include apps for symptom management or programs designed to enhance wellbeing, is varied. Some research indicates that apps have small positive effects for reducing symptoms of anxiety, stress and depression and improving wellbeing when used regularly in the context of a research trial^{21, 22}. However, there is concern about the quality and safety of many apps on the market, with as few as 2% of them being supported by published research^{23, 24}. Before recommending a tool, we advise that practitioners check whether it has research support, or confirm that its content and function are consistent with safe, evidence-based practice.



- An app to help individuals overcome low moods and anxiety by discovering new and better ways of coping.
- In an RCT, MoodMission resulted in a decrease in depressive symptoms and an increase in mental wellbeing. There were no changes in anxiety in the treatment or control groups.



myCompass

- A free self-help tool-box that aims to promote resilience and wellbeing for people experiencing mild to moderate stress, anxiety and/or depression.
- In an RCT, MyCompass resulted in improvements in symptoms of depression, anxiety, stress and work and social functioning, with improvements persisting for 3 months.

Peer Support Services that facilitate connection to a trained peer worker or a community of peers.

There is growing evidence supporting the feasibility, acceptability, and preliminary effectiveness of digital peer support in reducing mental health symptoms and facilitating recovery processes^{11, 25, 26}. While there is a need for further high-quality research, these services meet a clear demand with SANE Forums supporting over 300,000 users²⁷. The presence of trained moderation can help ensure the quality and safety of peer support²⁸.

REACHOUT

- Free professionally moderated anonymous discussion forums and peer chat.
- Over a 12 week trial, young people using Reach Out demonstrated modest reductions in symptoms of anxiety, stress, and depression.
- The proportion of participants at high risk of suicide also reduced.

MOST / ; : 1 Digital

- MOST provides a safe, moderated online community offering access to self-directed therapeutic content, helpful tailored information, practical tools, and real people to talk to.
- A pilot evaluation found MOST to be feasible, acceptable and safe.
- It also found significant improvement in distress, stress, wellbeing, depression and loneliness.

Information Services that provide information and advice on mental health topics

There is limited evidence that psychoeducation alone improves mental health or wellbeing, but it can improve mental health literacy, reduce stigma, and increase help-seeking²⁹.

View our online resource with the full reference list.













References

- ¹ Goldberg, S. B., Lam, S. U., Simonsson, O., Torous, J., & Sun, S. (2022). Mobile phone-based interventions for mental health: A systematic meta-review of 14 meta-analyses of randomized controlled trials. *PLOS Digital Health*, *1*(1), e0000002. Doi: 10.1371/journal.pdig.0000002
- ² Karyotaki, E., Efthimiou, O., Miguel, C., genannt Bermpohl, F. M., Furukawa, T. A., Cuijpers, P., ... & Forsell, Y. (2021). Internet -based cognitive behavioral therapy for depression: a systematic review and individual patient data network meta-analysis. *JAMA Psychiatry*, 78(4), 361-371. Doi: 10.1001/jamapsychiatry.2020.4364
- ³ Andrews, G., Basu, A., Cuijpers, P., Craske, M. G., McEvoy, P., English, C. L., & Newby, J. M. (2018). Computer therapy for the anxiety and depression disorders is effective, acceptable and practical health care: an updated meta-analysis. *Journal of Anxiety Disorders*, 55, 70-78. Doi: 10.1016/j.janxdis.2018.01.001
- ⁴ Carlbring, P., Andersson, G., Cuijpers, P., Riper, H., & Hedman-Lagerlöf, E. (2018). Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: an updated systematic review and meta-analysis. *Cognitive Behaviour Therapy*, 47(1), 1-18. Doi: 10.1080/16506073.2017.1401115
- ⁵ Andersson, G., Titov, N., Dear, B. F., Rozental, A., & Carlbring, P. (2019). Internet-delivered psychological treatments: from innovation to implementation. *World Psychiatry*, 18(1), 20-28. Doi: 10.1002/wps.20610
- ⁶ Etzelmueller, A., Vis, C., Karyotaki, E., Baumeister, H., Titov, N., Berking, M., Cuijpers, P., Riper, H. and Ebert, D.D., 2020. Effects of internet-based cognitive behavioral therapy in routine care for adults in treatment for depression and anxiety: systematic review and meta-analysis. *Journal of medical Internet research*, 22(8), p.e18100. Doi: 10.2196/18100
- ⁷ Olthuis, J. V., Watt, M. C., Bailey, K., Hayden, J. A., & Stewart, S. H. (2016). Therapist-supported Internet cognitive behavioural therapy for anxiety disorders in adults. *Cochrane Database of Systematic Reviews*, (3). Doi: 10.1002/14651858.CD011565.pub2.
- ⁸Twomey, C., & O'Reilly, G. (2017). Effectiveness of a freely available computerised cognitive behavioural therapy programme (MoodGYM) for depression: Meta-analysis. *Australian & New Zealand Journal of Psychiatry, 51*(3), 260-269. Doi: 10.1177/0004867416656258
- ⁹Werntz, A., Amado, S., Jasman, M., Ervin, A., & Rhodes, J. E. (2023). Providing human support for the use of digital mental health interventions: Systematic meta-review. *Journal of Medical Internet Research*, *25*, e42864. Doi: 10.2196/42864
- ¹⁰ Berry, N., Lobban, F., Emsley, R., & Bucci, S. (2016). Acceptability of interventions delivered online and through mobile phones for people who experience severe mental health problems: a systematic review. *Journal of Medical Internet Research*, *18*(5), e121. Doi: 10.2196/jmir.5250
- ¹¹ Fortuna, K. L., Naslund, J. A., LaCroix, J. M., Bianco, C. L., Brooks, J. M., Zisman-Ilani, Y., ... & Deegan, P. (2020). Digital peer support mental health interventions for people with a lived experience of a serious mental illness: systematic review. *JMIR Mental Health*, 7(4), e16460. Doi: 10.2196/16460
- ¹² Saddichha, S., Al-Desouki, M., Lamia, A., Linden, I. A., & Krausz, M. (2014). Online interventions for depression and anxiety—a systematic review. *Health Psychology and Behavioral Medicine: An Open Access Journal, 2*(1), 841-881. Doi: 10.1080/21642850.2014.945934
- ¹³ Giroux, I., Goulet, A., Mercier, J., Jacques, C., & Bouchard, S. (2017). Online and mobile interventions for problem gambling, alcohol, and drugs: a systematic review. *Frontiers in Psychology*, 8, 954. Doi: 10.3389/fpsyg.2017.00954
- ¹⁴ Philippe, T. J., Sikder, N., Jackson, A., Koblanski, M. E., Liow, E., Pilarinos, A., & Vasarhelyi, K. (2022). Digital health interventions for delivery of mental health care: systematic and comprehensive meta-review. *JMIR Mental Health*, *9*(5), e35159. Doi: 10.2196/35159
- ¹⁵ Melia, R., Francis, K., Hickey, E., Bogue, J., Duggan, J., O'Sullivan, M., & Young, K. (2020). Mobile health technology interventions for suicide prevention: systematic review. *JMIR mHealth and uHealth*, 8(1), e12516. Doi: 10.2196/12516
- ¹⁶Torok, M., Han, J., Baker, S., Werner-Seidler, A., Wong, I., Larsen, M. E., & Christensen, H. (2020). Suicide prevention using self-guided digital interventions: a systematic review and meta-analysis of randomised controlled trials. *The Lancet Digital Health*, *2*(1), e25-e36. Doi: 10.1016/S2589-7500(19)30199-2











- ¹⁷Watson, R. J., & Spiteri, J. A. (2020). Lifeline caller response times and suicide prevention. *Australian & New Zealand Journal of Psychiatry*, *54*(1), 10-11. Doi: 10.1177/000486741985031
- ¹⁸ Hoffberg, A. S., Stearns-Yoder, K. A., & Brenner, L. A. (2020). The effectiveness of crisis line services: a systematic review. *Frontiers in Public Health*, *7*, 399. Doi: 10.3389/fpubh.2019.00399
- ¹⁹ Assing Hvidt, E., Ploug, T., & Holm, S. (2016). The impact of telephone crisis services on suicidal users: A systematic review of the past 45 years. *Mental Health Review Journal*, 21(2), 141-160. Doi: 10.1108/MHRJ-07-2015-0019
- ²⁰ Stead, L. F., Perera, R., & Lancaster, T. (2007). A systematic review of interventions for smokers who contact quitlines. *Tobacco Control*, *16*(Suppl 1), i3-i8. Doi: 10.1136/tc.2006.019737
- ²¹ Eisenstadt, M., Liverpool, S., Infanti, E., Ciuvat, R. M., & Carlsson, C. (2021). Mobile apps that promote emotion regulation, positive mental health, and well-being in the general population: systematic review and meta-analysis. *JMIR Mental Health*, 8(11), e31170. Doi: 10.2196/31170
- ²² Rathbone, A. L., & Prescott, J. (2017). The use of mobile apps and SMS messaging as physical and mental health interventions: systematic review. *Journal of Medical Internet Research*, 19(8), e295. Doi: 10.2196/jmir.7740
- ²³ Wang, K., Varma, D. S., & Prosperi, M. (2018). A systematic review of the effectiveness of mobile apps for monitoring and management of mental health symptoms or disorders. *Journal of Psychiatric Research, 107*, 73-78. Doi: 10.1016/j.jpsychires.2018.10.006
- ²⁴Lau, N., O'Daffer, A., Colt, S., Joyce, P., Palermo, T. M., McCauley, E., & Rosenberg, A. R. (2020). Android and iPhone mobile apps for psychosocial wellness and stress management: systematic search in app stores and literature review. *JMIR mHealth and uHealth*, 8(5), e17798. Doi: 10.2196/17798
- ²⁵ Rice, S. M., Goodall, J., Hetrick, S. E., Parker, A. G., Gilbertson, T., Amminger, G. P., ... & Alvarez-Jimenez, M. (2014). Online and social networking interventions for the treatment of depression in young people: a systematic review. *Journal of Medical Internet Research*, *16*(9), e206. Doi: 10.2196/jmir.3304
- ²⁶ Smit, D., Miguel, C., Vrijsen, J. N., Groeneweg, B., Spijker, J., & Cuijpers, P. (2023). The effectiveness of peer support for individuals with mental illness: systematic review and meta-analysis. *Psychological Medicine*, *53*(11), 5332-5341. Doi: 10.1017/S0033291722002422
- ²⁷ Carrotte, E. et al. (2020) *SANE Forums Evaluation*. rep. Available at: https://www.sane.org/images/adrc/Publications/SANE_Forums_Evaluation_Summary_2020.pdf.
- ²⁸ Deng, D., Rogers, T., & Naslund, J. A. (2023). The Role of Moderators in Facilitating and Encouraging Peer-to-Peer Support in an Online Mental Health Community: A Qualitative Exploratory Study. *Journal of Technology in Behavioral Science*, 1-12. Doi: 10.1007/s41347-023-00302-9
- ²⁹ Brijnath, B., Protheroe, J., Mahtani, K. R., & Antoniades, J. (2016). Do web-based mental health literacy interventions improve the mental health literacy of adult consumers? Results from a systematic review. *Journal of Medical Internet Research, 18*(6), e165. Doi: 10.2196/jmir.5463