Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. The main objectives of this report are to:

1. Inform discussions on new topics received by HTW.
2. Determine the quantity and type of evidence available on a topic.
3. Assess the topic against HTW selection criteria.

Topic:	Digital self-help tools
Topic exploration report number:	TER072

Aim of Search

Health Technology Wales researchers searched for evidence on the use of digital self-help tools for the support of mental health and wellbeing in children and young people.

Summary of Findings

The purpose of this report was to undertake a broad, high-level search of the available literature on digital self-help tools that support mental health and wellbeing in children and young people.

This report identified several sources of evidence on digital self-help tools for children and young people, in both secondary and primary evidence. Some evidence, particularly the systematic reviews, were aimed to include a broader population, e.g. a population including multiple different conditions, or any person who requires mental health or wellbeing support. Other studies were applied to more specific populations, e.g. people with a specific disease, or experiencing a specific life event.

This topic covers digital health technologies and therefore fall under NICE's Evidence Standards Framework for Digital Health Technologies. The digital self-help tools identified in this report would be classified as 3a or 3b tier health technologies, and would potentially be considered 'high risk'. For these classifications, the standards require effectiveness to be demonstrated through high-quality experimental or quasi-experimental studies. Furthermore, when using behavioural change techniques, the standards require published evidence (qualitative or quantitative) to demonstrate that the techniques used are appropriate.

HTA Guidance
The update search for this TER conducted in January 2020 identified a relevant NICE guideline which makes recommendations relevant to the topic of digital self-help tools. NICE NG134 (Depression in children and young people: identification and management) makes recommendations on digital CBT for mild depression. Digital CBT is defined as:

"A form of CBT delivered using digital technology, such as a computer, tablet or phone. Some digital CBT interventions are supported by contact with a healthcare professional but in other cases there may be no additional support. Common components of digital CBT programmes include: psychoeducation, relaxation, analysis of behaviour, behavioural activation, basic communication and interpersonal skills, emotional recognition, dealing with strong emotions, problem solving, cognitive restructuring (identifying thoughts, challenging unhelpful/negative thoughts), mindfulness and relapse prevention."

NG134 recommends that young people aged 12 to 18 years with mild depression continuing after two weeks of watchful waiting and without significant comorbid problems or active suicidal ideas or plans are offered a choice of psychological therapies for a limited period (approximately 2 to 3 months) which includes digital CBT.

NICE is working with NHS England to identify and assess digitally enabled therapies for anxiety disorders and depression, which are self-study online but reinforced and supported by a therapist, through the IAPT programme. Technologies are selected and assessed by the NICE IAPT expert panel, who then make a recommendation on whether or not the technology should be evaluated in practice, through local IAPT services.

At the time of the initial search for this TER in May 2019, we identified reference to a children and young people IAPT programme on the NHS England website; however, the programme did not reference any specific interventions that would be going through the programme. This webpage is no longer available.

Secondary evidence
This report identified several systematic reviews that may be of relevance to the topic. Digital self-help tools included (but were not limited to) stress reducing strategies (mindfulness, relaxation techniques), computerised CBT. Comparators varied, and included (but were not limited to) other online therapies, non-digital or face-to-face therapies, waiting list, no treatment.

Overall, there was some promise for digital self-help tools, but much of the evidence was reported as heterogeneous and of low- to moderate- quality. Further assessment would be required to establish the validity and quality of the evidence for the topic in question.

Ongoing trials
This reported multiple ongoing trials investigating digital self-help tools (see literature search results for details of these).

No economic evidence was identified.

Conclusions

Overall, digital self-help tools show promise in a number of areas within mental health and wellbeing, and may be particularly helpful to people who do not currently have access (or do not want to have access) to other mental health services, such as face-to-face therapies. However, there is heterogeneity between studies, and a large proportion of the evidence was reported to be of low quality.

Areas of Uncertainty

This report identified evidence in multiple areas of interest, and it is unclear at this time if there are particular populations that would benefit most from use of digital self-help tools. We also identified literature that referred to 'non-guided self-help' and 'guided self-help'; it is uncertain whether or not guided self-help would be relevant to include as part of a fuller appraisal.

No economic evidence was identified.

Brief literature search results

Resource	Results
HTA organisations	
Healthcare Improvement Scotland:	No results were identified on digital self-help tools for children and young people.
Health Technology Assessment Group	Therapies: talking and self-help. Online mental health tools. https://www2.hse.ie/wellbeing/mental-health/therapies-talking-and-self-help/self-help-therapy.html#Online-mental-health-tools
Health Information and Quality Authority	No results were identified on digital self-help tools for children and young people.
UK guidelines and guidance	
SIGN	No results were identified on digital self-help tools for children and young people.
NICE	NG134: Depression in children and young people: identification and management (published June 2019) https://www.nice.org.uk/guidance/ng134 NICE are working with NHS England to assess digitally enabled therapies (self-study online reinforced and supported by the therapist) for anxiety disorders and depression in adults, through the Improving Access to Psychological Therapies (IAPT) services. At the time of searching, NHS England's website reported on a Children and Young People's IAPT programme; further details on the process or therapies going through this programme could not be identified and the original source is no longer available.
Secondary literature and economic evaluations	
EUnetHTA *Including* https://www.eunethta.eu/rapid-reas/	Not searched during update. No results were identified on digital self-help tools for children and young people.
ECRI	No results were identified on digital self-help tools for children and young people.
Cochrane library	Fisher E, Law E, Dudeney J, et al. (2019). Psychological therapies (remotely delivered) for the management of chronic and recurrent pain in children and adolescents. Cochrane Database of Systematic Reviews. (4). doi: 10.1002/14651858.CD011118.pub3. http://dx.doi.org/10.1002/14651858.CD011118.pub3 Liu Z, Sun YY, Zhong BL. (2018). Mindfulness-based stress reduction for family carers of people with dementia. Cochrane Database of Systematic Reviews. (8). doi: 10.1002/14651858.CD012791.pub2. http://dx.doi.org/10.1002/14651858.CD012791.pub2 Thabrew H, Stasiak K, Hetrick SE, et al. (2018). E-Health interventions for anxiety and depression in children and adolescents with long-term physical conditions. Cochrane Database of Systematic Reviews. (8). doi: 10.1002/14651858.CD012489.pub2. http://dx.doi.org/10.1002/14651858.CD012489.pub2

	James AC, James G, Cowdrey FA, et al. (2015). Cognitive behavioural therapy for anxiety disorders in children and adolescents. Cochrane Database of Systematic Reviews. (2). doi: 10.1002/14651858.CD004690.pub4. http://dx.doi.org/10.1002/14651858.CD004690.pub4 Murray E, Burns J, See Tai S, et al. (2005). Interactive Health Communication Applications for people with chronic disease. Cochrane Database of Systematic Reviews. (4). doi: 10.1002/14651858.CD004274.pub4. http://dx.doi.org/10.1002/14651858.CD004274.pub4
Medline	Daya Z, Hearn JH. (2018). Mindfulness interventions in medical education: A systematic review of their impact on medical student stress, depression, fatigue and burnout. Med Teach. 40(2): 146-53. doi: 10.1080/0142159x.2017.1394999. Pospos S, Young IT, Downs N, et al. (2018). Web-Based Tools and Mobile Applications To Mitigate Burnout, Depression, and Suicidality Among Healthcare Students and Professionals: a Systematic Review. Acad Psychiatry. 42(1): 109-20. doi: 10.1007/s40596-017-0868-0. https://www.ncbi.nlm.nih.gov/pubmed/29256033 Fleming T, Bavin L, Lucassen M, et al. (2018). Beyond the Trial: Systematic Review of Real-World Uptake and Engagement With Digital Self-Help Interventions for Depression, Low Mood, or Anxiety. J Med Internet Res. 20(6): e199. doi: 10.2196/jmir.9275. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6010835/ Ahola Kohut S, Stinson J, Davies-Chalmers C, et al. (2017). Mindfulness-Based Interventions in Clinical Samples of Adolescents with Chronic Illness: A Systematic Review. J Altern Complement Med. 23(8): 581-9. doi: https://doi.org/10.1089/acm.2016.0316 Feather JS, Howson M, Ritchie L, et al. (2016). Evaluation Methods for Assessing Users' Psychological Experiences of Web-Based Psychosocial Interventions: A Systematic Review. J Med Internet Res. 18(6): e181. doi: 10.2196/jmir.5455. Beatty L, Binnion C. (2016). A Systematic Review of Predictors of, and Reasons for, Adherence to Online Psychological Interventions. Int J Behav Med. 23(6): 776-94. doi: 10.1007/s12529-016-9556-9. Cheng SK, Dizon J. (2012). Computerised cognitive behavioural therapy for insomnia: a systematic review and meta-analysis. Psychother Psychosom. 81(4): 206-16. doi: 10.1159/000335379. Lewis C, Pearce J, Bisson JI. (2012). Efficacy, cost-effectiveness and acceptability of self-help interventions for anxiety disorders: systematic review. Br J Psychiatry. 200(1): 15-21. doi: 10.1192/bjp.bp.110.084756. Li J, Theng YL, Foo S. (2014). Game-based digital interventions for depression therapy: a systematic review and meta-analysis. Cyberpsychol Behav Soc Netw. 17(8): 519-27. doi: 10.1089/cyber.2013.0481. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118698/

	Mikolasek M, Berg J, Witt CM, et al. (2018). Effectiveness of Mindfulness- and Relaxation-Based eHealth Interventions for Patients with Medical Conditions: a Systematic Review and Synthesis. Int J Behav Med. 25(1): 1-16. doi: 10.1007/s12529-017-9679-7. Rogers MA, Lemmen K, Kramer R, et al. (2017). Internet-Delivered Health Interventions That Work: Systematic Review of Meta-Analyses and Evaluation of Website Availability. J Med Internet Res. 19(3): e90. doi: 10.2196/jmir.7111. https://www.ncbi.nlm.nih.gov/pubmed/28341617
Ongoing Research	
Clinicaltrials.gov	A systematic review of smartphone applications for psychosocial wellness, coping, and stress management [CRD42019132583] (Registered 06/08/2019, status ongoing) https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=132583 Mindfulness and Acceptance Applied in Colleges Through Web-Based Guided Self-Help (Phase II). NCT02761681. https://clinicaltrials.gov/ct2/show/NCT02761681 Feasibility and Efficacy of a Digital Mental Health Intervention for Teen Wildfire Survivors. NCT03868761. https://clinicaltrials.gov/ct2/show/NCT03868761 Can E-therapies Reduce Waiting Lists in Secondary Mental Health Care? A Randomized Controlled Trial. NCT02423733. https://clinicaltrials.gov/ct2/show/NCT02423733
Other	
Evidence identified by topic proposer	Matrics Cymru: http://www.1000livesplus.wales.nhs.uk/sitesplus/documents/1011/Matrics%20Cymru%20%28CM%20design%20-%20DRAFT%2015%29.pdf
Related for information	NHS Apps library Mental Health apps: https://www.nhs.uk/apps-library/category/mental-health Information for HCPs: https://www.nhs.uk/apps-library/information-healthcare-professionals/ How we assess apps: https://www.nhs.uk/apps-library/how-we-assess-apps/ NICE Evidence standards framework for digital health technologies: https://www.nice.org.uk/about/what-we-do/our-programmes/evidence-standards-framework-for-digital-health-technologies

Date of search:	May 2019 (Updated January 2020)
Concepts used:	mental health, self-help, wellbeing, mindfulness, digital tools, online tools, computerised