



Self-guided digital interventions: Evidence

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Literature searching carried out by the DWP Research Librarians - Vanessa Whittle and Jonathan Ginn

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Introduction

Topic: Evidence of self-guided digital interventions

Through the Digital Strand of the Challenge Fund, DWP are looking to fund digital initiatives that can be accessed universally by parents, are self-guided and can be accessed independently. This could be the kind of resource that parents are directed to as a first means of support. Digital interventions need to be something that primarily parents do by themselves without an external party chasing participation.

We expect applicants to use evidence to support their planned initiatives, and therefore the following research (conducted internally by DWP Research Library) provides some examples of self-guided digital interventions, as well as evidence of their approach and efficacy to support applicants in developing proposals

Although not all examples are aimed at reducing parental conflict, they could be used as evidence upon which initiatives could be developed.

Summary of results/key findings:

A search was carried out of eJournals and other scholarly publications, as well as business and other Open Access sources, using keywords including, but not limited to:

self-help	"mobile application"	parenting
self-guided	app	"parental conflict"
self-directed	computerised	
	digital	
	online	
	virtual	

AI-assisted

Results are listed chronologically, with the most recent first.

There is a great deal of academic research in this area, especially in mental health and other aspects of wellbeing.

Some journals are particularly relevant to the topic, especially:

[Internet Interventions](#) – “intervention studies targeting the promotion of mental health and featuring the Internet and/or technologies using the Internet as an underlying technology, e.g. computers, smartphone devices, tablets, sensors”. See, for instance:

- Osma, Jorge, et al. 2022 “Developing a smartphone App based on the Unified Protocol for the transdiagnostic treatment of emotional disorders: A qualitative analysis of users and professionals' perspectives” IN: *Internet Interventions*, Vol 30 (Dec 2022): e100577 <https://doi.org/10.1016/j.invent.2022.100577>
- Wintner, Suzanne, et al. 2022 “Evaluation of a scalable online videogame-based biofeedback program to improve emotion regulation: A descriptive study assessing parent perspectives” IN: *Internet Interventions*, Vol 28 (Apr 2022): e100527 <https://doi.org/10.1016/j.invent.2022.100527>
- Brog, Noemi Anja, et al. 2022 “Effects of an internet-based self-help intervention for psychological distress due to COVID-19: Results of a randomized controlled trial” IN: *Internet Interventions*, Vol 27 (Mar 2022): e100492 <https://doi.org/10.1016/j.invent.2021.100492>
- Liu, Hao, et al. 2022 “Using AI chatbots to provide self-help depression interventions for university students: A randomized trial of effectiveness” IN: *Internet Interventions*, Vol 27 (Mar 2022): e100495 <https://doi.org/10.1016/j.invent.2022.100495>
- Hentati, Amira, et al. 2021 “The effect of user interface on treatment engagement in a self-guided digital problem-solving intervention: A randomized controlled trial” IN: *Internet Interventions*, Vol 26 (Dec 2021): e100448 <https://doi.org/10.1016/j.invent.2021.100448>

JMIR Formative Research – “peer-reviewed ... research papers containing results from process evaluations, feasibility/pilot studies and other kinds of formative research and preliminary results ... from all areas of medical and health research”. See especially the theme ‘[Formative Evaluation of Digital Health Interventions](#)’, including:

- Nicol, Ginger, et al. 2022 “Chatbot-Delivered Cognitive Behavioral Therapy in Adolescents With Depression and Anxiety During the COVID-19 Pandemic: Feasibility and Acceptability Study” IN: *JMIR Form Res* 6 (11): e40242: <https://doi.org/10.2196/40242>
- Pape Magdalena, et al. 2022 “A Tailored Gender-Sensitive mHealth Weight Loss Intervention (I-GENDO): Development and Process Evaluation” IN: *JMIR Form Res* 6 (10): e38480: <https://doi.org/10.2196/38480>
- Bakre, Shivani, et al. 2022 “Changes in Food Insecurity Among Individuals Using a Telehealth and Nutrition Platform: Longitudinal Study” IN: *JMIR Form Res* 6 (10) :e41418: <https://doi.org/10.2196/41418>
- Su, Langting and Page Lyn Anderson “User Behavior of a Publicly Available, Free-to-Use, Self-guided mHealth App for Depression: Observational Study in a Global Sample” IN: *JMIR Form Res* 6 (10): e35538: <https://doi.org/10.2196/35538>
- Kenter, Robin Maria Francisca, Adrian Schønning and Yavuz Inal. 2022 “Internet-Delivered Self-help for Adults With ADHD (MyADHD): Usability Study” IN: *JMIR Form Res* 6 (10): e37137: <https://doi.org/10.2196/37137>

Regarding specific parenting interventions, there are several programmes in Australia – such as ParentWorks and Triple P – which have been studied in recent years, and several articles are included below. Examples which operate in Britain include Family Man and OnePlusOne.

Several interventions aim to improve parents' coping strategies in a potentially stressful situation (e.g. new parents, parents of ill or disabled children). Studies of interventions targeting parents, but which aim to improve outcomes for children (e.g. supporting children with learning disabilities or reducing child behaviour problems) are also included, e.g. where they discuss barriers to participation, factors that predict engagement or retention, or parents' experience of using a programme.

There has also been interest from researchers in co-design, of which examples include Bevan Jones (2020), a literature review, and Hodson (2019), a case study.

A small number of non-digital examples have been included where there may be transferrable lessons or good practice.

Parental relationships and conflict

OnePlusOne

<https://www.oneplusone.org.uk/what-we-offer/digital-resources>

A community website to support health relationships. OnePlusOne produce the 'Me, You and Baby Too' resource, delivered via [Click Relationships](#), and also 'See it differently' – a collection of videos and animations to help parents see family arguments from their children's point of view and offer alternative ways of handling disagreements.

Siljeholm, Ola, Philip Lindner, Magnus Johansson and Anders Hammarberg. 2022
“An Online Self-Directed Program Combining Community Reinforcement Approach and Family Training and Parenting Training for Concerned Significant Others Sharing a Child with a Person with Problematic Alcohol Consumption: A Randomized Controlled Trial.”

IN: Addiction Science & Clinical Practice 17 (1): 1–16

LINK: <https://ascjournal.biomedcentral.com/articles/10.1186/s13722-022-00332-3>

Background There is an urgent need for interventions helping children affected by parental problematic alcohol consumption (PAC). Such interventions could target partners to individuals with PAC, partners who often themselves show impaired quality of life and mental health. The aim of this study was to investigate the efficacy of an online self-directed intervention combining components from Community Reinforcement Approach and Family Training (CRAFT) with a parenting training program for concerned significant others (CSOs) sharing a child with a co-parent with PAC.

Methods A randomized controlled parallel-group superiority trial compared the efficacy of the online intervention for CSOs sharing a child (3–11 y/o) with a co-parent with PAC (N = 37), to an active control group (N = 39) receiving written psychoeducational material. Assessment of outcomes was conducted at baseline, 3 weeks, 8 weeks and 12 weeks. Primary outcome was children's mental health, while secondary outcomes included parental self-efficacy, CSO mental health and co-parent alcohol consumption and level of dependence. Linear mixed effect models with a factorial time variable were used to model time by group interaction effects.

Results Recruitment rate was slow and a vast majority of interested CSOs were excluded at baseline assessment, mainly due experience of co-parent violence. The target sample size was not met. The intention to treat analysis did not show any

significant time by group effects on either the primary or secondary outcomes during the follow-up period: the CSOs reported a significant reduction in co-parent alcohol consumption and severity of alcohol dependence and showed significant improvements in parental self-efficacy for how to handle effects of co-parent alcohol consumption, but no differences were found between the two conditions.

Conclusions The current study found no evidence supporting efficacy of a novel, online self-directed intervention on children's mental health, CSO mental health and co-parent alcohol related outcomes. Engaging in a support program or receiving information appears to initiate behavior change in the CSOs which affects the alcohol consumption and severity of dependence for co-parents with PAC. It is suggested that future studies may preferably focus on CSOs in more severely affected contexts.

Trial registration The trial was pre-registered at isrctn.com reference number ISRCTN38702517, November 28, 2017. [ABSTRACT FROM AUTHOR]

Troitskaya, Olga and Anastasia Batkhina. 2022

“Mobile application for couple relationships: Results of a pilot effectiveness study”

IN: Family Process 61 (2): 625-642

<https://doi.org/10.1111/famp.12733>

Mobile apps in mental health have seen a significant growth in recent years. Most of them are aimed at treating depression, anxiety, and stress disorders using cognitive behavioural therapy methods and relatively few apps are being developed to address interpersonal issues. This study tested the effectiveness of the iCognito Relationship Program, a self-help application for couple relationships based on the chatbot technology. A between-group experimental study was conducted in Russia using the bibliotherapy as a control condition (N = 58, female sample), with results showing that, after 2 weeks, iCognito's users had increased satisfaction, tenderness, constructive communication, as well as commitment to the relationship. Also, indicators for relationship self-efficacy, communicative skills in relationships, and self-esteem regarding relationship skills had significantly increased, while level of conflicts had decreased. A medium effect size was reported for most indicators. The participants of an experimental group expressed a high level of satisfaction with the technology and a generally positive attitude towards the idea of working with a “virtual psychologist”- chatbot on their personal issues. Despite the need to reproduce the research results, iCognito program demonstrates that both mobile application and chatbot technologies can be useful for training individuals' relationship satisfaction and communication skills, and that they can be more efficient in increasing satisfaction and reducing conflict in relationships than self-help books. [ABSTRACT FROM AUTHOR]

Kavanagh, David John, et al. 2021

“The Baby Steps Web Program for the Well-Being of New Parents: Randomized Controlled Trial”

IN: Journal of Medical Internet Research 23 (11): e23659

<https://doi.org/10.2196/23659>

Background: New parents face increased risks of emotional distress and relationship dissatisfaction. Digital interventions increase support access, but few preventive programs are optimized for both parents.

Objective: This study aims to conduct the first randomized controlled trial on universal self-guided digital programs to support positive perinatal adjustment of both mothers and fathers. Effects of childcare information (Baby Care) and information plus an interactive program (Baby Steps Wellbeing) were compared from the third trimester baseline to 3 and 6 months subsequently.

Methods: The study recruited 388 co-parenting male-female adult couples expecting their first single child (26-38 weeks' gestation), using web-based registration. Most (337/388, 86.8%) were obtained from prenatal hospital classes. Couples'

randomization was automated and stratified by Edinburgh Postnatal Depression Scale (EPDS) scores (50% couples scored high if either mother >7, father >5). All assessments were web-based self-reports: the EPDS and psychosocial quality of life were primary outcomes; relationship satisfaction, social support, and self-efficacy for parenting and support provision were secondary. Linear mixed models provided intention-to-treat analyses, with linear and quadratic effects for time and random intercepts for participants and couples.

Results: Selection criteria were met by 63.9% (248/388) of couples, who were all randomized. Most participants were married (400/496, 80.6%), tertiary educated (324/496, 65.3%), employed full time (407/496, 82%), and born in Australia (337/496, 67.9%). Their mean age was 32.2 years, and average gestation was 30.8 weeks. Using an EPDS cutoff score of 13, 6.9% (18/248) of men, and 16.1% (40/248) of women screened positive for depression at some time during the 6 months. Retention of both partners was 80.6% (201/248) at the 6-month assessments, and satisfaction with both programs was strong (92% ≥ 50). Only 37.3% (185/496) of participants accessed their program more than once, with higher rates for mothers (133/248, 53.6%) than fathers (52/248, 20.9%; $P < .001$). The EPDS, quality of life, and social support did not show differential improvements between programs, but Baby Steps Wellbeing gave a greater linear increase in self-efficacy for support provision ($P = .01$; Cohen $d = 0.26$) and lower reduction in relationship satisfaction ($P = .03$; Cohen $d = 0.20$) than Baby Care alone. Mothers had greater linear benefits in parenting self-efficacy over time than fathers after receiving Baby Steps Wellbeing rather than Baby Care ($P = .01$; Cohen $d = 0.51$). However, the inclusion of program type in analyses on parenting self-efficacy and relationship satisfaction did not improve model fit above analyses with only parent gender and time.

Conclusions: Three secondary outcomes showed differential benefits from Baby Steps Wellbeing, but for one (parenting self-efficacy), the effect only occurred for mothers, perhaps reflecting their greater program use. Increased engagement will be needed for more definitive testing of the potential benefits of Baby Steps Wellbeing for perinatal adjustment. [ABSTRACT FROM AUTHOR]

Houlston, Catherine, Abigail Millings, Penny Mansfield, and Shannon L. Hirst. 2019
“Development and Practical Use of an Emotional Readiness Assessment for Support in Family Justice Processes.”

IN: Family Court Review 57 (3): 332–41

<https://doi.org/10.1111/fcre.12426>

The ability to make effective co-parenting agreements and reduce conflict following divorce depends on a person's emotional state or readiness. This article outlines OnePlusOne's development and piloting of an Emotional Readiness Assessment and subsequent digital tool, in collaboration with the University of Sheffield. It comprises a summary of a literature review to identify the key emotions experienced during separation and their influence on making effective childcare arrangements, item development derived from the review and expert consultation, feedback from separated parents regarding sources of support, practitioners' feedback regarding the tool's feasibility, and concordance between mediator comments and clients' scores on the tool. Ways of using this tool in practice and implications for further development are also discussed. Key Points for the Family Court Community: The ability to make effective co-parenting agreements and reduce conflict following divorce depends on a person's emotional state or readiness. Establishing the extent of separating parents' emotional readiness would enable practitioners to signpost to appropriate support and to pathways that facilitate successful dispute resolution and effective co-parenting. The Emotional Readiness Scale appears to be a useful and practical measure to assess separating parents' readiness to make childcare arrangements with their ex-partner. The Emotional Readiness Tool, a digitized version of this scale is currently available. Ongoing research into the outcomes associated with different levels of emotional

readiness and the dyadic nature of the construct is planned. [ABSTRACT FROM AUTHOR]

Cicila, Larisa N., Emily J. Georgia, and Brian D. Doss. 2014

“Incorporating Internet-Based Interventions into Couple Therapy: Available Resources and Recommended Uses.”

IN: Australian & New Zealand Journal of Family Therapy 35 (4): 414–30

<https://doi.org/10.1002/anzf.1077>

Although there are a number of highly efficacious in-person treatments designed to ameliorate relationship distress, only a small proportion of distressed couples seek out in-person treatment. Recently developed internet-based interventions based on these in-person treatments are a promising way to circumvent common barriers to in-person treatment and give more distressed couples access to these efficacious interventions. The overarching aims of this review are to provide couple and family therapists with a broad overview of the available internet-based interventions and provide suggestions about how these interventions might be utilized before, during, or after in-person treatment. The majority of the review centres on internet-based interventions for distressed couples and covers four distinct types of resources: relationship advice websites; assessment/feedback interventions; enrichment interventions for satisfied couples; and interventions targeting at-risk or distressed couples. Included is a case study of one couple's journey through a newly developed intervention targeting at-risk couples. Internet-based interventions targeting individual psychopathology (e.g. anxiety and depression) are also reviewed. These interventions would be particularly useful as an adjunctive resource for in-person couple or family therapy when referrals for a concurrent in-person individual therapist are not feasible (because of time, financial, or geographic constraints). We close with three appendices: two appendices with information on currently available internet-based interventions; and one appendix with recommendations on how to incorporate these resources into in-person therapy. [ABSTRACT FROM AUTHOR]

Parents / Families – general

Movember Family Man

<https://familyman.movember.com/en-gb>

This website is produced by the Movember Foundation, which focuses on men's health issues. Family Man is a brief, free, self-directed online parenting program that provides parents with evidence-based [see, e.g. Dadds, et al. (2019), below] strategies to manage challenging child behaviour, promote positive parent-child interactions and support parental teamwork. It is aimed especially at (although not restricted to) fathers. The website presents a number of video episodes, each discussing how to handle potentially challenging situations, and quizzes to test understanding. Regular articles offer additional information, such as answers to parenting questions and tips to cope with difficult situations.

see also: Registered Trial ACTRN12622001032741 “Evaluating the efficacy of Family Man: a self-directed online parenting program targeting child behaviour, dysfunctional parenting, and parent well-being”, which aims to conduct a RCT of Family Man:

<https://trialssearch.who.int/Trial2.aspx?TrialID=ACTRN12622001032741>

Positioning Parent Positive Study

<https://www.kcl.ac.uk/research/positioning-parent-positive>

Parent Positive (PP) is an innovative mobile phone application that provides practical advice and support for parents of children aged 4-10. It was developed in the context of the COVID-19 pandemic and the gap in the availability of support for families during this time, including but not limited to specialist clinical services. The project is led by

the King's College London Department of Child & Adolescent Psychiatry.
The Positioning Parent Positive (PPP) Study aims to:

- explore stakeholders' views about the settings Parent Positive could be used most effectively and how it could be developed further
- undertake further app development to optimise its functionality to ensure its effectiveness in a broad range of new settings
- develop a strategy for app dissemination.

Broomfield, Grace, Scott D. Brown and Marie B. H. Yap. 2022

“Socioeconomic factors and parents' preferences for internet- and mobile-based parenting interventions to prevent youth mental health problems: A discrete choice experiment”

IN Internet Interventions Vol 28 (April 2022): e100522

<https://doi.org/10.1016/j.invent.2022.100522>

Background The positive impact of parenting programs for youth mental health is undermined by difficulties engaging parents. Low engagement disproportionately impacts parents of lower-socioeconomic positions (SEPs). Internet- and mobile-based interventions hold potential for overcoming barriers to enrolment, but additional research is needed to understand how programs can appropriately meet the needs of parents across SEPs. Consumer preference methods such as discrete choice experiments may be valuable in this endeavour.

Method A discrete choice experiment was used to determine the relative influence of modifiable program features on parents' intent to enrol. 329 Australian parents of children aged 0–18 repeatedly selected their preferred program from randomized sets of hypothetical programs in an online survey. Each hypothetical program was unique, varying across four program features: module duration, program platform, user control, and program cost. Cumulative link models were used to predict choices, with education, household income, and community advantage used as indicators of SEP.

Results Overall, parents preferred cheaper programs and briefer modules. Parents' preferences differed based on their socioeconomic challenges. Lower-income parents preferred briefer modules, cheaper programs and application-based programs compared to higher-income parents. Parents with less education preferred briefer modules and a predefined module order. Parents living in areas of less advantage preferred website-based programs, user choice of module order, and more expensive programs.

Conclusions This study offers program developers evidence-based strategies for tailoring internet- and mobile-based parenting interventions to increase lower-SEP parent enrolment. Findings also highlight the importance of considering parents' socioeconomic challenges to ensure programs do not perpetuate existing mental health inequalities, as “one-size-fits-all” approaches are likely insufficient for reaching lower-SEP parents. [ABSTRACT FROM AUTHOR]

note: key findings include: program cost and module duration were most important to parents' intent to enrol; preferences for program features varied based on socioeconomic circumstances; and greater customisability may improve the reach of digital parenting interventions.

de Jong, Suzanne R. C., et al. 2022

“The Efficacy of a Self-Help Parenting Program for Parents of Children with Externalizing Behavior: A Randomized Controlled Trial.”

IN: European Child & Adolescent Psychiatry, July, 1–12

DOI: <https://doi.org/10.1007/s00787-022-02028-0>

Parenting programs are effective for children with externalizing problems, but not always easily accessible for parents. In order to facilitate accessibility, we developed a self-help parenting program, consisting of a manual and online part. The efficacy of the program in reducing children's externalizing problems was compared to waitlist in a

randomized controlled trial. In addition, two versions of the program were exploratively compared, one with and one without biweekly telephonic support. Candidate moderators (child and parent factors) and parental satisfaction were also examined. We randomly assigned 110 families to one of the following three conditions: the support condition, the no support condition, or the waitlist condition. Intervention duration was 15 weeks. Outcomes were collected at baseline (T0), 8 weeks (T1), 15 weeks (T2), and 28 weeks (T3) and included daily telephonic measurements of parent-rated externalizing behavior and the Intensity scale of the parent-rated Eyberg Child Behavior Inventory (ECBI). Main analyses compared outcomes at T2, using longitudinal regressions with T0 as fixed factor. Results showed that children improved significantly more on both outcomes in the intervention condition compared to waitlist, with small to medium effect sizes. Parental satisfaction was high. Neither differences in efficacy nor in parental satisfaction were found between the support and no support condition. No moderators were detected. The newly developed self-help parenting program is effective in reducing children's externalizing behavior problems and may help improve access to evidence-based care. [ABSTRACT FROM AUTHOR]

Fernandes, Daniela V, et al. 2022

“A Web-Based, Mindful, and Compassionate Parenting Training for Mothers Experiencing Parenting Stress: Results from a Pilot Randomized Controlled Trial of the Mindful Moment Program.”

IN: Mindfulness, November, 1–18

DOI: <https://doi.org/10.1007/s12671-022-02016-0>

Objectives: Mindful Moment is a self-guided, web-based, mindful, and compassionate parenting training for postpartum mothers who experience parenting stress. We aimed to assess Mindful Moment's feasibility, acceptability, and usability, and to gather preliminary evidence of its effectiveness in reducing parenting stress and outcomes such as mindful parenting, self-compassion, depressive symptoms, anxious symptoms, dispositional mindfulness, mother's perception of infant temperament, and mother-infant bonding.

Methods: This pilot randomized controlled trial (RCT) was a two-arm trial and followed the CONSORT 2010, CONSORT-EHEALTH, and CONSORT-SPI 2018 extension guidelines. A total of 292 Portuguese mothers were randomly assigned to the intervention group (n = 146) or to the waiting list control group (n = 146) and completed baseline (T1) and postintervention (T2) self-reported assessments.

Results: A total of 31 mothers (21.23%) completed the Mindful Moment intervention. Most mothers evaluated the program as good or excellent (90%), considered that Mindful Moment provided them the kind of help they expected or wanted (61%), were satisfied with the help provided by the program (74.6%), would recommend it to a friend in a similar situation (86.4%), and would use it again if needed (81.4%). Regarding the program's preliminary effectiveness, mothers in the intervention group presented a greater decrease in parenting stress, a greater increase in dispositional mindfulness, and a greater decrease in their perception of the difficult temperament of their infants from T1 to T2.

Conclusions: This study provides preliminary evidence of the Mindful Moment's effectiveness and suggests that it is a feasible and acceptable program for postpartum mothers experiencing parenting stress. Further research is needed to confirm these results in a larger RCT.

Trial Registration: ClinicalTrials.gov (NCT04892082). [ABSTRACT FROM AUTHOR]

Hartley, Matthew, Diana Dorstyn, and Clemence Due. 2022

“Challenges Encountered with a Mindfulness App: Lessons Learnt from a Pilot Randomized Trial Involving Caregivers and Individuals with Autism.”

IN: Research in Autism Spectrum Disorders 96 (August)

<https://doi.org/10.1016/j.rasd.2022.101991>

Background We undertook a trial to examine the feasibility of a self-guided mindfulness app, Smiling Mind, for children and adults with Autism Spectrum Disorder (ASD) and their parents. The trial encountered problems in recruitment, enrollment and retention which are described here.

Methods Of 169 eligible participants, only 22 consented and were randomly assigned to Smiling Mind (n = 12) or an attention control condition (n = 10). A further six participants withdrew during the study. Barriers to trial participation were subsequently explored through semi-structured interviews, to form case studies, and a follow-up survey.

Results Interview and survey data highlighted parents' competing time commitments as a key barrier to participation. For children and adults with ASD, distraction and boredom were major challenges to engagement.

Conclusions A number of modifiable variables in our recruitment procedures and intervention design ultimately resulted in a sample size that was too small to draw any firm conclusions from. Future ASD research can maximize sampling by broadening recruitment strategies and partnering with community services and schools. Engagement in mindfulness could also be improved by incorporating regular communication to motivate time poor participants.

Linardon, Jake, et al. 2022

“Monitoring Australian Parents’ Shifting Receptiveness to Digital Mental Health Interventions during the COVID-19 Pandemic.”

IN: Australian & New Zealand Journal of Psychiatry 56 (11): 1503–14

[abstract only]

DOI: <https://doi.org/10.1177/00048674211065985>

Background: Nascent evidence indicates that the mental health of parents and children has markedly declined during the COVID-19 pandemic. Considering disruptions to traditional face-to-face mental health services resultant from stay-at-home orders, the potential value of digital mental health interventions has become extremely apparent. Despite this, uptake of digital interventions remains poor, indicating that a better understanding is needed of factors that determine a willingness to use digital platforms.

Method: The present multi-wave, longitudinal study of 2365 Australian parents explored between-person and within-person predictors of intentions to use digital interventions during the pandemic.

Results: More than one-third of parents reported likely use of a self-guided and therapist-guided digital intervention, with the most endorsed reason for use being to support their child's mental health. Between-person baseline predictors of higher intention ratings were parent's prior mental illness, not living with a partner and recent environmental stressors. Within-person predictors of higher intention ratings were endorsement of mindful parenting strategies, child access to the Internet, better perceived management of child's education, lower social support and financial hardship.

Conclusion: Findings demonstrate that willingness to engage in digital interventions fluctuates in response to changing circumstances. Identifying novel ways to increase acceptance and uptake of digital interventions based on modifiable predictors established here is needed to realize the full potential of these modes of care in times of need. [ABSTRACT FROM AUTHOR]

Muller, Jessica L., et al. 2022

“Understanding Parent Perspectives on Engagement with Online Youth-Focused Mental Health Programs.”

IN: Psychology & Health, June, 1–18

[abstract only]

DOI: <https://doi.org/10.1080/08870446.2022.2090561>

Objective Online youth-focused health programs often include parent modules—that equip parents with skills to assist their child in improving their health—alongside youth-specific content. BRAVE Self-Help, an evidence-based program designed for children and teenagers with early signs of anxiety, is a popular Australian program that includes six parent modules. Despite its popularity and proven efficacy, BRAVE Self-Help shares the same challenge as many online self-help programs—that of low participant engagement. Using parents registered in BRAVE Self-Help as ‘information rich’ participants, we explored (a) factors that influenced parent engagement in online health programs, and (b) their recommendations for enhancing parent engagement.

Design and Outcome Measure We conducted semi-structured interviews with 14 parents registered in BRAVE Self-Help. Data were analysed through reflexive thematic analysis.

Results Social-, family- and program-related factors drove parents’ program engagement and recommendations. Social sub-themes related to the benefits of professional and community support in promoting more engagement. Family sub-themes included difficulties with program engagement due to competing priorities, perceptions that condition severity influenced engagement, and feelings that previously-acquired health knowledge reduced motivation to engage. Program sub-themes included perceived usefulness and ease-of-use.

Conclusion Program designers could target support systems, include flexible delivery options, and use iterative design processes to enhance parent engagement.

[ABSTRACT FROM AUTHOR]

Tarver, Joanne, David Daley, and Kapil Sayal. 2022

“A Self-help Version of the New Forest Parenting Programme for Parents of Children with Attention Deficit Hyperactivity Disorder: A Qualitative Study of Parent Views and Acceptability.”

IN: Child & Adolescent Mental Health 27 (3): 215–22

DOI: <https://doi.org/10.1111/camh.12476>

Background: Although parent interventions are recommended as a frontline treatment approach for children with attention deficit hyperactivity disorder (ADHD), a number of practical and situational barriers can impact accessibility and availability. Self-help parent interventions offer a potential alternative to therapist-led interventions when barriers prevent access to face-to-face treatment. This qualitative study aims to explore participant views and acceptability of self-help parent interventions.

Method: Semi-structured interviews were conducted with parents/carers of 12 children (age 6–10 years) with ADHD who received the self-help version of the New Forest Parenting Programme (NFPP-SH) as part of a randomised controlled trial. Thematic analysis (as proposed by Braun and Clarke) was used to analyse the data.

Results: Overall, participants had favourable views of the self-help intervention but also experienced some barriers to treatment adherence. Six key themes were identified in parent interviews related to parental desire to learn more; acquisition of new skills; the flexibility of the intervention; self-help intervention vs. traditional therapist-led formats; barriers to engagement in the home environment; and need for earlier access to help.

Conclusions: NFPP-SH was an acceptable intervention for parents. However, some parents may need additional support to overcome barriers associated with completing an intervention at home. Implications for healthcare providers and researchers developing self-help parent interventions for ADHD and child behaviour are discussed.

[ABSTRACT FROM AUTHOR]

Xavier, Sandra, Fabiana Monteiro, Maria Cristina Canavarro, and Ana Fonseca. 2022

“Be a Mom: Patterns of Program Usage and Acceptability Among Women With Low-Risk and High-Risk for Postpartum Depression.”

IN: *Frontiers in Global Women's Health* 3 (March): 841427

DOI: <https://doi.org/10.3389/fgwh.2022.841427>

Background: Be a Mom is a self-guided web-based intervention developed to prevent postpartum depression (PPD) symptoms and to promote maternal wellbeing, respectively among high and low-risk new mothers. This study aims to examine and compare (1) Be a Mom's patterns of usage and (2) Be a Mom's acceptability among women presenting high and low risk for PPD.

Methods: The sample was composed by 800 women who were randomized to Be a Mom [542 presenting high-risk (Postpartum Depression Predictors Inventory-Revised \geq 5.5) and 258 presenting low-risk for PPD]. Data regarding patterns of usage were collected through the Be a Mom website. Acceptability data were collected through a brief questionnaire.

Results: 27.9% of high-risk and 36.3% of low-risk women completed the program. A higher proportion of participants in the low-risk group completed Be a Mom [$\chi^2(1) = 5.29, p = 0.021$] and completed more modules [$t(723) = -3.01, p = 0.003$]. No significant differences were found between the groups in number of logins, minutes spent on the program, exercises completed and number of times audios were played. A higher proportion of women in the high-risk group considered that participating in Be a Mom was too demanding [$\chi^2(1) = 8.21, p = 0.004$].

Conclusions: Despite the low rates of completion, Be a Mom appears to be an acceptable option for both women with high-risk and low-risk for PPD. Lack of time seems to be the main reason for non-completion, so it is important to develop briefer versions of the program and introduce engagement strategies that may increase completion rate.

see also: Monteiro, Fabiana, et al. 2021 **"Be a Mom, a Web-Based Intervention to Promote Positive Mental Health Among Postpartum Women With Low Risk for Postpartum Depression: Exploring Psychological Mechanisms of Change."**

Frontiers in Psychiatry 2021 Jul 14 (12): 701107:

<https://doi.org/10.3389/fpsy.2021.701107>

Dai, Yael G., et al. 2021

"Development and Acceptability of a New Program for Caregivers of Children with Autism Spectrum Disorder: Online Parent Training in Early Behavioral Intervention."

IN: *Journal of Autism & Developmental Disorders* 51 (11): 4166–85

DOI: <https://doi.org/10.1007/s10803-020-04863-z>

Early intervention with parent participation is important for facilitating skill development in children with Autism Spectrum Disorder (ASD). However, many barriers delay or prohibit families from accessing care. We describe the development and acceptability of a novel, comprehensive, self-directed online program for caregivers of children with ASD. Program effectiveness will be presented in a subsequent manuscript. The program is based on behavioral, naturalistic, and developmental principles, and teaches caregivers to use evidence-based interventions to teach developmentally appropriate targets. Approximately two-thirds of enrolled parents completed all 14 modules; barriers to completion for the additional families are described. Parents reported that the program was clear, enjoyable, and useful in teaching them interventions and in improving their children's skills and behavior. [ABSTRACT FROM AUTHOR]

note: the second part of the study, into the effectiveness of the programme, has not yet been published (as of November 2022).

Piotrowska, Patrycja J., et al. 2020

"ParentWorks: Evaluation of an Online, Father-Inclusive, Universal Parenting Intervention to Reduce Child Conduct Problems."

IN: *Child Psychiatry & Human Development* 51 (4): 503–13

DOI: <https://doi.org/10.1007/s10578-019-00934-0>

Evidence-based parenting interventions are effective in reducing conduct problems, yet these interventions have limited reach, and few involve the participation of fathers. This paper describes the outcomes of an open trial of ParentWorks, a universal, online, father-inclusive parenting intervention aiming to decrease childhood behavioural problems and promote positive parenting in mothers and fathers. A total of 388 families (456 individual parents; 36.6% fathers) were included in the study. Mixed model analyses showed significant decreases in child emotional/behavioural problems, dysfunctional parenting, interparental conflict, and parental mental health problems. The baseline severity of child behavioural problems significantly moderated the effects on child outcomes so that children with higher levels of problems benefitted more from the program. Participation of both caregivers in two-parent families, as well as parent sex, did not significantly affect the program outcomes. Results provide initial empirical support for the universal, self-directed, online parenting intervention, in addressing both child behavioural problems and parenting outcomes. Trial registration: ACTRN12616001223426, registered 05/09/2016. [ABSTRACT FROM AUTHOR]

Collins, Daniel A.J., et al. 2019

“Perspectives on ParentWorks: Learnings from the Development and National Roll-out of a Self-Directed Online Parenting Intervention.”

IN: Internet Interventions 15 (March): 52–59

DOI: <https://doi.org/10.1016/j.invent.2018.12.002>

Online parenting interventions are an increasingly viable alternative to face-to-face programs, as they can potentially overcome barriers to participation and increase program reach. The current paper describes learnings from the design, development and dissemination of ParentWorks, a self-directed online parenting intervention designed to be inclusive of both mothers and fathers. ParentWorks was promoted via a national media campaign and was accessible to all Australian parents through a dedicated website. Participants created a user account, engaged in a series of video modules, and completed assessment measures at pre-, post-program and 3-month follow-up. For two-caregiver families, parents were encouraged to participate together using a shared account. There was no direct practitioner support, although a range of innovative automated features were included to enhance participant motivation and encourage program completion. Several key lessons emerged from program development and implementation. These relate primarily to design and content of the program website, user account functionality, program structure and features, and data collection. Further research is needed particularly with regard to methods for increasing participant retention in self-directed online programs. The learnings described here will be relevant to those researching and developing online parenting interventions as well as other online mental health interventions aiming to reach a large population sample. [ABSTRACT FROM AUTHOR]

Dadds, Mark R., et al. 2019

“Keeping Parents Involved: Predicting Attrition in a Self-Directed, Online Program for Childhood Conduct Problems”

IN: Journal of Clinical Child & Adolescent Psychology 48 (6): 881-893

DOI: <https://doi.org/10.1080/15374416.2018.1485109>

Positive parenting programs have a strong evidence base for improving parent–child relationships, strengthening families, and reducing childhood behavior disturbances. Their reach is less than optimal however, with only a minority of families in need of help participating. Father involvement is particularly low. Online, self-directed programs have the potential to improve participation rates. This article examines risk factors for dropout/attrition from a free, evidence-based, self-directed, father-inclusive parenting program, Parentworks, which was made available across Australia. Parents (N = 2,967) enrolled in the program and completed preintervention questionnaires. There

was a steady and consistent loss of participants through the sequence of core program modules, until a final sample of 218 completed the postintervention questionnaire. A range of demographic and parent and child variables were tested as predictors of 3 subgroups: nonstarters, partial completers, and full completers. Nonstarters (n = 1,625) tended to have older children with fewer behavioral problems and report higher psychopathology and dysfunctional parenting than those who partially (n = 1,124) or fully completed. Contrary to findings from face-to-face research, single parents had the highest completion rates. Coparticipation of partners and interparental conflict had no impact on completion rates. Fathers participated at relatively high levels. Results show that parents with the greatest need tend to engage with online programs, and online programs may be particularly useful for fathers, single parents, and those in conflicted relationships. Directions for future program design and research are discussed.
[ABSTRACT FROM AUTHOR]

Baumel, Amit, and Keren Faber. 2018
“Evaluating Triple P Online: A Digital Parent Training Program for Child Behavior Problems.”

IN: *Cognitive and Behavioral Practice* 25 (4): 538–43

DOI: <https://doi.org/10.1016/j.cbpra.2017.10.001>

Triple P Online (i.e., TPOL; www2.tripleponline.net) is an online self-help parent training program aimed at reducing child behavior problems through “positive parenting practices”—available at time of review for \$79.95. TPOL is comprised of 8 video-based modules that also incorporate in-session activities and homework. Randomized control trials have shown that TPOL effectively reduces child behavior problems. The program’s main strengths include very high-quality content with an abundance of relevant and easily locatable resources, an easy-to-use interface, and a professional look and feel. The program’s main weakness lies in its lack of monitoring and adaptation to the user’s state (e.g., child’s and parent’s behaviors), and real-time reminders for desired actions. Altogether, TPOL is an extremely valuable and important resource for families seeking evidence-based treatment for child behavior problems.
[ABSTRACT FROM AUTHOR]

Day, Jamin J., and Matthew R. Sanders. 2018
“Do Parents Benefit From Help When Completing a Self-Guided Parenting Program Online? A Randomized Controlled Trial Comparing Triple P Online With and Without Telephone Support.”

IN: *Behavior Therapy* 49 (6): 1020–38

DOI: <https://doi.org/10.1016/j.beth.2018.03.002>

In response to recent increases in the dissemination of Web-based parenting supports, an important consideration is whether the core benefits of self-directed participation in online parenting interventions are counterbalanced by issues such as high dropout and noncompletion rates commonly reported within the Internet intervention literature. This study outlines a randomized controlled trial of Triple P Online, a Web-based variant of the Triple P—Positive Parenting Program, delivered with varied levels of support scaffolding. Participants were 183 parents of children between 1 and 8 years of age with concerns about their child’s behavior and at least one area of disadvantage or family difficulty. Participants were randomized to self-directed Triple P Online, telephone-supported Triple P Online, or a wait-list control. Primary outcomes measured at baseline, postintervention, and 5-month follow-up were negative parenting styles and child behavior problems. Secondary outcomes included parent confidence, anger, and adjustment; relationship quality; program engagement; and parent satisfaction. Self-directed participants showed short-term treatment effects, including reductions in overall negative parenting and frequency of child behavior problems, while practitioner support led to greater improvements in negative parenting and intensity of difficult child behaviors. Participants in the supported condition were also more likely to complete

modules and reported greater program satisfaction. At follow-up, 50% of outcomes for the self-directed condition were significantly better than the control, while 94% of outcomes were significantly better than the control in the practitioner-supported condition. Although self-directed online approaches to parenting intervention are promising, this research highlights how minimal support can improve effective engagement and enhance outcomes for families. [ABSTRACT FROM AUTHOR]

Jelley, Fiona and Kathy Sylva; Sutton Trust. 2018

EasyPeasy – Evaluation in Newham

<https://www.suttontrust.com/our-research/easypeasy-evaluation-in-newham/>

The Sutton Trust working in partnership with Esmée Fairbairn Foundation established the Parental Engagement Fund (PEF) building on the evidence that engaging parents in their children's learning can have a positive impact on their attainment. The aim of the fund is to increase attainment for disadvantaged children in the early years through the development of more effective parental engagement.

As part of the PEF project, EasyPeasy – a digital programme for parents and carers of 2-5 year old children that encourages positive parent-child interaction through play in the home – has been trialled in two authorities: Bournemouth and Newham. The two trials were designed differently: Bournemouth was an individual-level randomised controlled trial (RCT) and Newham involved whole children's centres being allocated to different trial groups. This report focuses on the Newham trial. The study found that families in the intervention group (those with access to EasyPeasy) had significantly higher scores than the comparison group on two parent-reported outcomes: children's cognitive self-regulation and parents' sense of control.

Clarke, S-A, R Calam, A Morawska, and M Sanders. 2014

“Developing Web-Based Triple P ‘Positive Parenting Programme’ for Families of Children with Asthma.”

IN: Child: Care, Health and Development 40 (4): 492–97

DOI: <https://doi.org/10.1111/cch.12073>

Background: We examined the feasibility of self-directed Triple P 'Positive Parenting Programme' for optimizing parents' management of childhood asthma and behaviour. **Methods:** Eligible families were invited to access asthma-specific web-based Triple P as part of a preliminary randomized controlled study.

Results: Initial study information and introductory website pages received considerable interest but intervention uptake was poor with high rates of attrition.

Conclusions: Although parents of children with asthma show willingness to access web-based parenting support, further work is necessary to develop engaging websites and determine barriers to uptake, and adherence to online parenting interventions with this population. [ABSTRACT FROM AUTHOR]

Workplace treatments

Blake, Holly, et al. 2022

“Managing Minds at Work: Development of a Digital Line Manager Training Program.”

IN: International Journal of Environmental Research and Public Health 19 (13)

DOI: <https://doi.org/10.3390/ijerph19138006>

Mental ill-health is the leading cause of sickness absence, creating a high economic burden. Workplace interventions aimed at supporting employers in the prevention of mental ill-health in the workforce are urgently required. Managing Minds at Work is a digital intervention aimed at supporting line managers in promoting better mental health at work through a preventative approach. This intervention was developed as part of the Mental Health and Productivity Pilot, a wider initiative aimed at supporting employers across the Midlands region of the United Kingdom to improve the future of

workplace mental health and wellbeing. The aim of the study is to describe the design and development of the Managing Minds at Work digital training program, prior to feasibility testing. We adopted a collaborative participatory design involving co-design (users as partners) and principles of user-centred design (pilot and usability testing). An agile methodology was used to co-create intervention content with a stakeholder virtual community of practice. Development processes were mapped to core elements of the Medical Research Council (MRC) framework for developing and evaluating complex interventions. The program covers five broad areas: (i) promoting self-care techniques among line managers; (ii) designing work to prevent work-related stress; (iii) management competencies to prevent and reduce stress; (iv) having conversations with employees about mental health; (v) building a psychologically safe work environment. It was considered by stakeholders to be appropriate for any type of organization, irrespective of their size or resources. Pilot and usability testing (n = 37 surveys) aligned with the Technology Acceptance Model (TAM) demonstrated that the program was perceived to be useful, relevant, and easy to use by managers across sectors, organization types, and sizes. We identified positive impacts on manager attitudes and behavioral intentions related to preventing mental ill-health and promoting good mental wellbeing at work. The next step is to explore the feasibility and acceptability of Managing Minds at Work with line managers in diverse employment settings. [ABSTRACT FROM AUTHOR]

Self-directed learning

Mathura, Pragya, Ozge Yucel-Aybat, Lauren Block and Eric M. Eisenstein. 2022
“The effect of consumers' implicit theory of personality and product feedback in self-directed consumer contexts”

IN: Personality and Individual Differences, Vol 190 (May 2022): e111526

<https://doi.org/10.1016/j.paid.2022.111526>

Self-guided learning products such as online education and language learning apps are pervasive in today's consumer environment. We investigate how the congruence between one's implicit theory of personality and the type of feedback provided to consumers influences evaluations of these products. Relying on converging evidence from one quasi-field and two experimental studies using real-life self-directed consumer contexts, we find that consumers' product satisfaction can be enhanced by providing consumers with well-tailored feedback that aligns with their implicit theory of personality. Our work uniquely suggests that advancement (how much of the task is completed) and proficiency (how well the consumer has done) feedback are not uniformly appealing to all consumers, and that not all feedback leads to more favorable product evaluations for entity and incremental theorists. Our work advances the implicit theory and consumption progress feedback literature and makes substantive recommendations to marketers who increasingly rely on consumers to navigate the learning and consumption of their offerings. [ABSTRACT FROM AUTHOR]

European Centre for the Development of Vocational Training (CEDEFOP). 2019

Not just new jobs: digital innovation supports careers

Briefing note 9143, October 2019

https://www.cedefop.europa.eu/files/9143_en.pdf

Thanks to innovative tools, greater data availability and artificial intelligence, new approaches to career development support and self-directed learning are transforming lifelong learning. Cedefop has been looking into European countries' recent practices, to see how they help their citizens make relevant career and learning choices. This briefing note explores how new technologies can help people manage their careers, undergo training and change their jobs. Examples include: the use of gaming as a means of informing young people about occupations and learning options; EGuidance (Denmark) which delivers guidance services to via social media; and Mijn loopbaan

(My Career, Belgium) which allows people to create a personalised portfolio online which is connected to a job vacancy database. However, the briefing concludes that technology innovations can help provide users with high quality online information and advice, but that personalised support will always need human intervention.
[ABSTRACT FROM AUTHOR]

Salomão, Roberta Caroline Silva, Francisco Rebelo, and Fernando Gamboa Rodríguez. 2015

“Defining Personas of University Students for the Development of a Digital Educational Game to Learn Portuguese as a foreign [sic] Language.”

IN: Procedia Manufacturing 3 (January): 6214–22

DOI: <https://doi.org/10.1016/j.promfg.2015.07.941>

This study is part of a research project which aims to develop an educational digital game prototype for learning Portuguese as a Foreign Language – PFL – self-directed learning by university students interested in studying in Brazil and Portugal. Based on the current premises of Educational Design, to close educational technology resources to users and on the concept of personas that investigates user characteristics in order to identify profiles to support the technological product, thirty international university students who attended part of their academic course in Brazil and Portugal were interviewed. For this qualitative part, a script for the semi-directive interviews was created. The interviews were transcribed and analyzed by content analysis technique using the software MAXQDA. Some of the findings were that 60% of students used informal learning as the only way or complement to formal learning of PFL before going to international program (the most mentioned resource Duolingo); plurilingualism characteristic of the sample; different vocabulary necessities according to Portuguese levels and mother tongue (Spanish, Romance language and other languages); varied habits of playing digital games, 63% of the sample as players (puzzles as the most mentioned gender played) and expectations as adaption to learning speeds, attractive design and story, challenges, competition, cultural information, fun, good feedback, good learning content, interaction with natives, original texts, reading and oral interpretation, talking/typing to characters, rewards and optional prizes in a digital game for learning a Foreign Language. [ABSTRACT FROM AUTHOR]

note: this article aims to provide a case study in educational digital game design.

Mental health – general

Hugh-Jones, Siobhan, et al. 2022

“Adolescents accept digital mental health support in schools: A co-design and feasibility study of a school-based app for UK adolescents”

IN: Mental Health & Prevention 27 (September 2022): e200241

<https://doi.org/10.1016/j.mhp.2022.200241>

Schools in the UK are required to provide frontline mental health promotion and prevention to adolescents, but with few resources. School-hosted mHealth is one option which could meet needs. This study co-designed and feasibility tested a self-help, school hosted, digital intervention for adolescents showing early symptoms of deteriorating mental health. Via extensive co-design, we produced a youth-targeted web-app (MindMate2) and a low-intensity parent component (Partner2U). Feasibility was tested in four UK high schools with n = 31 young people (15-17y). We specified rules for progression to an effectiveness trial, tested candidate primary outcome measures and conducted an exploratory cost-effectiveness analysis. Co-design produced MindMate2U to be a six-week, self-help, smartphone-delivered program targeting risk and protective factors for adolescent mental health. Young people's MindMate2U account was set up by school after which they progressed independently through six topics of their choosing. User ratings (n = 19) and post- intervention interviews (n = 6) showed resource acceptability. We met our recruitment, retention

and pre-post measure completion targets and identified the Strengths and Difficulties Questionnaire as the most sensitive outcome measure. This study established the feasibility of a co-designed, mental health app as a low-burden, school-hosted resource for symptomatic young people and opens up new possibilities for the integration of mHealth in schools. Support via schools to parents of symptomatic young people may need to be universal rather than targeted. Following some refinements of MindMate2U, a phase 2 randomised controlled trial is warranted to test its effectiveness.

[ABSTRACT FROM AUTHOR]

Porche, Michelle V., Johanna B. Folk, Marina Tolou-Shams, and Lisa R. Fortuna. 2022 **“Researchers’ Perspectives on Digital Mental Health Intervention Co-Design With Marginalized Community Stakeholder Youth and Families.”**

IN: *Frontiers in Psychiatry* 13 (April): 1–6

<https://doi.org/10.3389/fpsy.2022.867460>

Co-design of digital mental health technology with youth and families is a relatively new but growing approach to intervention development. In this perspective article, researchers used collaborative reflexivity through duoethnography methodology to reflect and report on experiences and lessons learned conducting co-designed projects with marginalized youth and families. Researchers engaged in written reflective dialogue regarding projects designed to co-develop technology-based apps and computer programs to support mental health of youth and their families. Reflections described the barriers and challenges for sharing responsibilities with stakeholders who have extensive lived experience but limited exposure to research. Researchers shared insights about their own intersectionality and positionality from marginalized to privileged, relative to co-design participants, and what it means to share authority, authentic partnership, and responsibility in the research process. Cultural understanding may diverge, even between acculturated minority researchers and matched minority stakeholders. While there are a variety of approaches that researchers might refer to as co-design, it is important to be intentional in the implementation of these processes so that collaborations with stakeholder youth and families are neither disingenuous nor exploitative. Implications for equitable and meaningful engagement of marginalized communities in co-design projects for youth mental health are discussed. [ABSTRACT FROM AUTHOR]

Gulliver, Amelia, et al. 2021

“Predictors of acceptability and engagement in a self-guided online program for depression and anxiety”

IN: *Internet Interventions* 25 (September 2021): e100400

<https://doi.org/10.1016/j.invent.2021.100400>

Background Low engagement with self-guided online programs limits the potential of these programs to provide effective and low-cost treatment of mild to moderate depression and anxiety at scale. Identifying factors that increase uptake and adherence in self-guided online programs may facilitate the development of targeted implementation strategies to increase engagement with these programs in the community. Using data from a randomized controlled trial of a self-guided online program for depression and anxiety, the aim of this study was to identify predictors of the acceptability of internet-based psychological programs, and engagement (uptake and adherence) with the online program tested in the trial.

Methods A total of 556 community members with elevated symptoms of depression or anxiety were recruited via social media into the two active conditions of a three-arm randomized controlled trial. This trial tested the effectiveness of a 7-week self-guided online program for depression and anxiety called myCompass 2, delivered with or without an Engagement-Facilitation Intervention. Predictors of uptake (accessing at least one therapeutic module of the program), adherence (modules completed), and acceptability of internet-based psychological programs (Unified Theory of Acceptance

and Use of Technology, UTAUT scale) were examined, including demographics, mental health status, help-seeking attitudes, stigma, acceptability of internet programs, and personality factors.

Results Logistic regression demonstrated that higher levels of conscientiousness (OR = 1.06, $p = .026$, 95% CI =1.01–1.12), and acceptability of internet-based psychological programs (OR = 1.09, $p = .005$, 95% CI =1.03–1.16) predicted greater uptake, and that failing to complete a module was predicted by lower levels of acceptability (OR = 0.88, $p = .027$, 95% CI =0.78–0.99). Linear regression showed that higher levels of agreeableness ($t = 4.66$, $p < .001$), lower levels of stigma ($t = -2.28$, $p = .023$) and more positive help-seeking attitudes ($t = 2.05$, $p = .041$) predicted higher acceptability attitudes.

Discussion Acceptability of internet-based psychological programs was identified as a factor that increased both uptake and adherence to the myCompass 2 program. Efforts to increase the acceptability of these programs may improve engagement with these programs in the community. It may also be useful to consider personality traits and clinical profiles when considering the appropriate audience for self-guided internet interventions. [ABSTRACT FROM AUTHOR]

Jang, Sooah, et al. 2021

“Mobile app-based chatbot to deliver cognitive behavioral therapy and psychoeducation for adults with attention deficit: A development and feasibility/usability study”

IN: International Journal of Medical Informatics 150 (June 2021): e104440

[abstract only] <https://doi.org/10.1016/j.ijmedinf.2021.104440>

Background Attention deficit is a growing problem in adults, and early diagnosis and treatment are needed. Previous studies have shown that cognitive behavioral therapy (CBT) is effective in improving attention deficit symptoms. However, many patients are not receiving adequate treatment due to time, space, and cost constraints. Recently, in other mental illnesses, mobile-based chatbots delivering CBT and psychoeducation have been used for symptom mitigation and treatment.

Objective This study aimed to investigate the feasibility and usability of a short-term intervention, specifically a mobile-based interactive chatbot application, in alleviating attention deficit symptoms.

Methods This was a randomized, non-blind parallel-group pilot study conducted from September 2019 to March 2020. Forty-six individuals with attention deficit aged 19–60 were randomly allocated to the chatbot ($n = 23$) and information-only control groups ($n = 23$) for 4 weeks. The former group was instructed to use the chatbot application “Todaki,” while the latter group was provided with a book on managing attention deficit symptoms. Participants were administered questionnaires to assess their symptoms of attention deficit, depression, and anxiety and evaluated at baseline and 4 weeks after the intervention. The post-intervention survey assessed the chatbot’s usability, acceptability, and side effects.

Results The average age of the participants was 25.1 years (standard deviation [SD] 7.5 years), and 56.5 % (26/46) participants were female. Intention-to-treat analysis (chatbot, $n = 23$; control, $n = 23$) revealed a significant reduction of attention deficit symptoms only in the chatbot group, which is represented by group-by-time interaction in Conner’s Adult ADHD Rating Scale subscales of Diagnostic and Statistical Manual-IV Attention-Deficit/Hyperactivity Disorder (ADHD) Hyperactive-Impulsive symptoms ($F = 4.39$; $p = .04$) and ADHD symptoms total ($F = 6.74$, $p = .01$). Further, the results of the paired t-test were significant only in the chatbot group. The average number of times the chatbots were used in 4 weeks was 20.32 (SD 12.89). The total average usage time was 1 h 15 min (SD 1 h 20 min). The degree of improvement in the ADHD symptoms total score was correlated with the number of times the psychoeducation program was used. According to the participants, the empathic/friendly character and unnatural flow of conversation were the best and worst features of the chatbot,

respectively.

Conclusions This study identified the feasibility and usability of using the mobile-based chatbot to improve attention deficit and its associated psychiatric symptoms. Using this novel intervention to conduct CBT would provide a useful digital therapeutic tool that allows easy accessibility and self-guided management for people with attention deficit, which should be verified through the large scale randomized controlled trial. [ABSTRACT FROM AUTHOR]

Goldberg, Simon B, et al. 2020

“Testing the Efficacy of a Multicomponent, Self-Guided, Smartphone-Based Meditation App: Three-Armed Randomized Controlled Trial.”

IN: JMIR Mental Health 7 (11): e23825

DOI: <http://dx.doi.org/10.2196/23825>

Background A growing number of randomized controlled trials (RCTs) suggest psychological benefits associated with meditation training delivered via mobile health. However, research in this area has primarily focused on mindfulness, only one of many meditative techniques.

Objective This study aims to evaluate the efficacy of 2 versions of a self-guided, smartphone-based meditation app—the Healthy Minds Program (HMP)—which includes training in mindfulness (Awareness), along with practices designed to cultivate positive relationships (Connection) or insight into the nature of the self (Insight).

Methods A three-arm, fully remote RCT compared 8 weeks of one of 2 HMP conditions (Awareness+Connection and Awareness+Insight) with a waitlist control. Adults (≥ 18 years) without extensive previous meditation experience were eligible. The primary outcome was psychological distress (depression, anxiety, and stress).

Secondary outcomes were social connection, empathy, compassion, self-reflection, insight, rumination, defusion, and mindfulness. Measures were completed at pretest, midtreatment, and posttest between October 2019 and April 2020. Longitudinal data were analyzed using intention-to-treat principles with maximum likelihood.

Results A total of 343 participants were randomized and 186 (54.2%) completed at least one posttest assessment. The majority (166/228, 72.8%) of those assigned to HMP conditions downloaded the app. The 2 HMP conditions did not differ from one another in terms of changes in any outcome. Relative to the waitlist control, the HMP conditions showed larger improvements in distress, social connectedness, mindfulness, and measures theoretically linked to insight training ($d = -0.28$ to 0.41 ; $P \leq .02$), despite modest exposure to connection- and insight-related practice. The results were robust to some assumptions about nonrandom patterns of missing data. Improvements in distress were associated with days of use. Candidate mediators (social connection, insight, rumination, defusion, and mindfulness) and moderators (baseline rumination, defusion, and empathy) of changes in distress were identified.

Conclusions This study provides initial evidence of efficacy for the HMP app in reducing distress and improving outcomes related to well-being, including social connectedness. Future studies should attempt to increase study retention and user engagement. [ABSTRACT FROM AUTHOR]

Zainal, Nur Hani, et al. 2021

“Pilot randomized trial of self-guided virtual reality exposure therapy for social anxiety disorder”

IN: Behaviour Research and Therapy 147 (December 2021): e103984

<https://doi.org/10.1016/j.brat.2021.103984>

Background Virtual reality exposure therapy (VRE) has shown promising efficacy for the treatment of social anxiety disorder (SAD) and related comorbidities. However, most trials conducted to date were therapist-led, and little is known about the efficacy of self-guided VRE. Therefore, this randomized controlled trial (RCT) aimed to determine the efficacy of a self-directed VRE for SAD.

Method Forty-four community-dwelling or undergraduate adults diagnosed with SAD based on the Mini International Neuropsychiatric Interview were randomly assigned to VRE designed to last four sessions or more (n = 26) or waitlist (WL; n = 18). Self-reported SAD severity (Social Phobia Diagnostic Questionnaire and Social Interaction Anxiety Scale), job interview anxiety (Measure of Anxiety in Selection Interviews), trait worry (Penn State Worry Questionnaire), and depression symptoms (Patient Health Questionnaire-9) were administered at baseline, post-treatment, 3-month-follow-up (3MFU), and 6-month-follow-up (6MFU). Piecewise multilevel modeling analyses were conducted to manage clustering in the data.

Results VRE vs. WL resulted in greater reductions in SAD symptom severity, job interview fear, and trait worry, with moderate-to-large effect sizes (Hedge's $g = -0.54$ to -1.11) from pre-to-post treatment. Although significant between-group differences did not emerge for change in depression, VRE led to change in depression, whereas waitlist did not. These gains were also maintained at 3MFU and 6MFU. Further, facets of presence increased during the course of VRE ($g = 0.36-0.45$), whereas cybersickness decreased ($g = -0.43$).

Discussion Brief, self-guided VRE might ameliorate SAD and comorbid worry, for young-to-middle-aged adults with SAD. Other theoretical and practical implications were also discussed. [ABSTRACT FROM AUTHOR]

Chandrashekar, Pooja. 2018

“Do Mental Health Mobile Apps Work: Evidence and Recommendations for Designing High-Efficacy Mental Health Mobile Apps.”

IN: MHealth 4 (March): 6

<http://dx.doi.org/10.21037/mhealth.2018.03.02>

This brief article argues that mental health apps do have value in providing psychological treatment, and presents four recommendations for high-efficacy mental health apps. It notes the challenges of using apps for mental health treatment, broadly categorised into: poor regulation of quality and privacy; inconsistencies in engagement; and a narrow focus on one disorder per app.

Levin, Michael E., Krista Stocke, Benjamin Pierce, and Crissa Levin. 2018

“Do College Students Use Online Self-Help? A Survey of Intentions and Use of Mental Health Resources.”

IN: Journal of College Student Psychotherapy 32 (3): 181–98

DOI: <https://doi.org/10.1080/87568225.2017.1366283>

Online self-help may help increase the reach of mental health services for college students, but little research has examined students' actual interest/use of these resources. An online survey of 389 college students examined intentions and use of online mental health resources as compared with other support options. Findings indicated the highest intentions/use of informal supports (e.g., parents, friends) for mental health problems and lowest intentions/use for online self-help. However, a subset of students showed a preference for online self-help over other forms of support. Participants were also more likely to request online self-help resources (21%) than in-person therapy resources (9%) when offered these options. Reported barriers were also identified for using mobile applications (apps) specifically (e.g., stigma, credibility, privacy). Overall, results suggest mixed findings and relatively low interest for use of online self-help among college students, while highlighting potential barriers that might be addressed to increase engagement. [ABSTRACT FROM AUTHOR]

Other healthcare

Gomes, Manuel, Elizabeth Murray, and James Raftery. 2022

“Economic Evaluation of Digital Health Interventions: Methodological Issues and Recommendations for Practice.”

IN: *PharmacoEconomics* 40 (4): 367–78

LINK: <https://link.springer.com/article/10.1007/s40273-022-01130-0>

Health care interventions are increasingly being delivered through digital technologies, offering major opportunities for delivering more health gains from scarce health care resources. Digital health interventions (DHIs) raise distinct challenges for economic evaluations compared with drugs and medical devices, not least due to their interacting, evolving features. The implications of the distinctive nature of DHIs for the methodological choices underpinning their economic evaluation is not well understood. This paper provides an in-depth discussion of distinct features of DHIs and how they might impact the design, measurement, analysis and reporting of cost-effectiveness analysis conducted alongside both randomised and non-randomised studies. These include aspects related to choice of comparator, costs and benefits assessment, study perspective and type of economic analysis. We argue that typical methodological standpoints, such as taking a health service perspective, focusing on health-related benefits and adopting cost-utility analyses, as typically adopted in the economic evaluation of non-digital technologies (pharmaceutical drugs and medical devices), are unlikely to be appropriate for DHIs. We illustrate how these methodological aspects can be appropriately addressed in an evaluation of a digitally supported, remote rehabilitation programme for patients with Long Covid in England. We highlight several methodological considerations for improving practice and areas where further methodological work is required. [ABSTRACT FROM AUTHOR]

Hurmuz, Marian Z. M., et al. 2022

“Evaluation of a virtual coaching system eHealth intervention: A mixed methods observational cohort study in the Netherlands”

IN: *Internet Interventions* Vol 28 (April 2022): e100501

<https://doi.org/10.1016/j.invent.2022.100501>

Background With the rise in human life expectancy, the prevalence of chronic disease has increased significantly. Adopting a healthy lifestyle can decrease the risk of chronic disease. Virtual coaching systems can help older adults adopt a healthy lifestyle.

Aim The primary objective of this study was to assess the use, user experience and potential health effects of a conversational agent-based eHealth platform (Council of Coaches) implemented in a real-world setting among older adults.

Methods An observational cohort study was conducted with older adults aged 55 years or older in the Netherlands. Participants were enrolled for 5–9 weeks during which they had access to Council of Coaches. They completed three questionnaires: pre-test, post-test, and at follow-up. After five weeks, an interview was conducted, and participants chose whether they wanted to use the eHealth intervention for another four weeks during the facultative phase.

Results The study population consisted of 51 older adults (70.6% female) with a mean age of 65.3 years (SD = 7.4). Of these, 94.1% started interacting with Council of Coaches, and most participants interacted once per week. During the facultative phase, 21 participants were still interacting with Council of Coaches. Minimal clinical important differences in quality of life were found among the study population after interacting with Council of Coaches.

Conclusion Our results demonstrate that eHealth interventions with virtual coaching can be used among older adults. This may increase quality of life for older adults, and decrease their healthcare needs. Future research into such eHealth interventions should take into account the inclusion of sufficient personalised content and the use of a mixed methods study for assessing the eHealth intervention. [ABSTRACT FROM AUTHOR]

note: the article discusses the use of ‘embodied conversational agents’ (ECAs) – computer-generated animated characters that facilitate one-on-one personal interactions with users.

Smith, Allan “Ben,” et al. 2022

“Feasibility and Preliminary Efficacy of iConquerFear: A Self-Guided Digital Intervention for Fear of Cancer Recurrence.”

IN: Journal of Cancer Survivorship, July

DOI: <https://doi.org/10.1007/s11764-022-01233-9>

This study aims to evaluate the feasibility and preliminary efficacy of iConquerFear, a five-module self-guided digital fear of cancer recurrence (FCR) intervention. Qualitative feedback indicated engagement was sometimes limited by difficulties with navigation and relating to the survivors featured in the programme. Participants reported significantly improved FCR from the baseline to post-intervention. The study concludes that iConquerFear is a feasible and potentially efficacious intervention for reducing FCR in breast cancer survivors. Easier navigation and more relatable examples may enhance engagement.

see also: a clinical trial is underway assessing the impact of iConquerFear in ovarian cancer survivors: <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-02408144/full>

Ainsworth, Ben, et al. 2021

“A Feasibility Trial of a Digital Mindfulness-Based Intervention to Improve Asthma-Related Quality of Life for Primary Care Patients with Asthma.”

IN: Journal of Behavioral Medicine, August, 1–15

DOI: <https://doi.org/10.1007/s10865-021-00249-3>

Asthma outcomes remain suboptimal, despite effective pharmacotherapy. Psychological dysfunction (such as anxiety) is common, and associated with poorer outcomes. We evaluated a digital mindfulness programme as an intervention to improve asthma-related quality of life for primary care patients, in a prospectively registered randomized-controlled feasibility study. We offered ‘Headspace’, a widely-used digital mindfulness intervention, to adults with asthma through 16 UK GP practices. Participants were randomized on a 2:1 basis to the mindfulness intervention, or waitlist control. Participants completed questionnaires (including asthma symptom control, asthma-related quality of life, anxiety, depression) at baseline, 6-week and 3-month follow-up. 116 participants completed primary outcomes at 3-month follow-up: intervention 73 (79%), control 43 (84%). Compared to baseline, the intervention group but not the control group reported significantly improved asthma-related quality of life, with a between-group difference favoring the intervention group that was not significant (Mean difference = 0.15, 95%CI – 0.13 to 0.42). Intervention use varied (ranging from 0 to 192 times) but was generally high. Digital mindfulness interventions are feasible and acceptable adjunct treatments for mild and moderate asthma to target quality of life. Further research should adapt ‘generic’ mindfulness-based stress-reduction to maximize effectiveness for asthma, and validate our findings in a fully-powered randomized controlled trial. [ABSTRACT FROM AUTHOR]

note: this study looks at the application of a widely known programme – ‘Headspace’ – to a specific condition – asthma.

Greenwell, Kate, et al. 2021

“Mixed Methods Process Evaluation of My Breathing Matters, a Digital Intervention to Support Self-Management of Asthma.”

IN: NPJ Primary Care Respiratory Medicine 31 (1): 35

Link: <https://www.nature.com/articles/s41533-021-00248-6>

This study aimed to explore user engagement with ‘My Breathing Matters’, a digital self-management intervention for asthma, and identify factors that may influence engagement. In a mixed methods design, adults with asthma allocated to the intervention arm of a feasibility trial (n = 44) participated in semi-structured interviews (n = 18) and a satisfaction questionnaire (n = 36) to explore their views and experiences of the intervention. Usage data highlighted that key intervention content was delivered

to most users. The majority of questionnaire respondents (78%; n = 28) reported they would recommend the intervention to friends and family. Interviewees expressed positive views of the intervention and experienced several benefits, mainly improved asthma control, medication use, and breathing technique. Factors that may influence user engagement were identified, including perceptions of asthma control, current self-management practices, and appeal of the target behaviours and behaviour change techniques. Findings suggested My Breathing Matters was acceptable and engaging to participants, and it was used as intended. [ABSTRACT FROM AUTHOR]

Ilhan, Aylin, Yuanyuan Feng, Kaja J. Fietkiewicz, and Elizabeth V. Eikey. 2020
“Opportunities and Challenges of Self-tracking Technologies: Understanding Information, Technology, and Users through the Lens of Information Science.”
IN: Proceedings of the Association for Information Science and Technology 57 (1): e296

[abstract only] <https://doi.org/10.1002/pr2.296>

Health self-tracking technologies are used for various reasons, from tracking of physical activity (e.g., counting steps) and supporting weight loss to managing chronic illness and monitoring fertility. In many cases, the technology is characterized as a facilitator, the user as the main actor, and the information as a foundation for achieving the desired outcome. Apart from obvious benefits such as gaining awareness of one's body and health, users also face a range of challenges when using various self-tracking technologies. This panel focuses the discussion on opportunities and challenges of self-tracking technologies from the perspective of information science. Particularly, the panelists will address the importance of the information provided by self-tracking technologies, which is a critical component of the conceptual triad (information, technology, and users) to comprehensively understand the nature of human interactions with such technologies. [ABSTRACT FROM AUTHOR]

Ainsworth, Ben, Anne Bruton, Lucy Yardley, and Mike Thomas. 2016
“The Development of My Breathing Matters: A Digital Intervention to Improve Patient Self-Management of Asthma.”

IN: European Respiratory Journal 48 (suppl 60): PA734

[abstract only]

DOI: <https://doi.org/10.1183/13993003.congress-2016.PA734>

Background: It is estimated that appropriate early-intervention and self-management could prevent 70% of asthma-related hospital admissions. Patient education and self-management have been convincingly shown to improve clinical outcomes in asthma, and digital interventions have proved a cost-effective means by which to do this in other chronic health conditions. We used existing quantitative and a program of qualitative research to develop My Breathing Matters, an online self-management programme to improve a variety of asthma-related outcomes.

Method: Our person-based approach to intervention development took an iterative approach, exploring patients' perceptions of My Breathing Matters using thematic analysis of in-depth think-aloud studies, with modifications based on feedback.

Findings: The age range of the patient group was 21 to 61, all with a positive diagnosis of asthma. My Breathing Matters was viewed positively by patients as a tool for patient self-management. Patients had positive perceptions of both pharmacological and non-pharmacological self-management techniques. Patients approved of digital interventions for self-management, including personalized tailoring in order to allow quick access of relevant content (such as an online Personalized Asthma Action Plan).

Conclusions: This study provides important evidence that digital interventions are an acceptable and well-liked way to improve asthma-related outcomes. Further research will conduct a feasibility trial of the intervention, with process analyses of patient and primary care staff experiences, to inform a future Phase 3 trial. [ABSTRACT FROM AUTHOR]

see also: report of feasibility study of a randomised controlled trial of the effectiveness and acceptability of My Breathing Matters: Ainsworth Ben, et al. 2019. **“Feasibility Trial of a Digital Self-Management Intervention ‘My Breathing Matters’ to Improve Asthma-Related Quality of Life for UK Primary Care Patients with Asthma.”** IN: BMJ Open 9 (11): e032465: <http://dx.doi.org/10.1136/bmjopen-2019-032465>

Kevin Anderson, Oksana Burford, and Lynne Emmerton. 2016
“Mobile Health Apps to Facilitate Self-Care: A Qualitative Study of User Experiences.”

IN: PLoS ONE 11 (5): e0156164

DOI: <https://doi.org/10.1371/journal.pone.0156164>

Objective: Consumers are living longer, creating more pressure on the health system and increasing their requirement for self-care of chronic conditions. Despite rapidly-increasing numbers of mobile health applications ('apps') for consumers' self-care, there is a paucity of research into consumer engagement with electronic self-monitoring. This paper presents a qualitative exploration of how health consumers use apps for health monitoring, their perceived benefits from use of health apps, and suggestions for improvement of health apps.

Materials and Methods: 'Health app' was defined as any commercially-available health or fitness app with capacity for self-monitoring. English-speaking consumers aged 18 years and older using any health app for self-monitoring were recruited for interview from the metropolitan area of Perth, Australia. The semi-structured interview guide comprised questions based on the Technology Acceptance Model, Health Information Technology Acceptance Model, and the Mobile Application Rating Scale, and is the only study to do so. These models also facilitated deductive thematic analysis of interview transcripts. Implicit and explicit responses not aligned to these models were analyzed inductively.

Results: Twenty-two consumers (15 female, seven male) participated, 13 of whom were aged 26-35 years. Eighteen participants reported on apps used on iPhones. Apps were used to monitor diabetes, asthma, depression, celiac disease, blood pressure, chronic migraine, pain management, menstrual cycle irregularity, and fitness. Most were used approximately weekly for several minutes per session, and prior to meeting initial milestones, with significantly decreased usage thereafter. Deductive and inductive thematic analysis reduced the data to four dominant themes: engagement in use of the app; technical functionality of the app; ease of use and design features; and management of consumers' data.

Conclusions: The semi-structured interviews provided insight into usage, benefits and challenges of health monitoring using apps. Understanding the range of consumer experiences and expectations can inform design of health apps to encourage persistence in self-monitoring. [ABSTRACT FROM AUTHOR]

Meta-analyses / Systematic reviews / Literature reviews

Babbage, Camilla M., Georgina M. Jackson, E Bethan Davies and Elena Nixon. 2022
“Self-help Digital Interventions Targeted at Improving Psychological Well-being in Young People With Perceived or Clinically Diagnosed Reduced Well-being: Systematic Review”

IN: JMIR Mental Health 9 (8): e25716

DOI: <https://doi.org/10.2196/25716>

Background: Levels of well-being are declining, whereas rates of mental health problems remain high in young people. The World Health Organization defines mental health as not merely the absence of mental disorder but also includes social and psychological well-being as integral to positive mental health, highlighting that mental health is applicable to young people with mental health conditions and those without a diagnosis of a mental health condition. Reduced mental well-being have been identified

in studies of young people with clinical populations, as well as in populations consisting of nonclinical young people. Self-help digital interventions can be delivered at mass at a low cost and without the need for trained input, thereby facilitating access to support for well-being. Self-help interventions are effective in young people with mental health conditions, but systematic reviews of such studies have been limited to randomized controlled trials, have not included reduced well-being as an inclusion criterion, and do not consider engagement factors such as retention.

Objective: The objective of this study was to systematically review all controlled studies of digitally delivered, self-administered interventions for young people aged 9 to 25 years, with perceived or clinically diagnosed reduced psychological well-being. Participant retention and effectiveness of the interventions were also explored.

Methods: A systematic search of the PsycInfo, EMBASE, Cochrane, Scopus, and MEDLINE databases from inception to 2021, reference searches of relevant papers, and gray literature was carried out for digitally controlled studies conducted with young people with perceived or clinically diagnosed reduced well-being, aimed at improving psychological well-being. Data were extracted to identify the effectiveness and retention rates of the interventions and the quality of the studies.

Results: Overall, 1.04% (12/1153) of studies met the inclusion criteria: 83% (10/12) of studies were randomized controlled trials and 17% (2/12) were controlled pre-post studies. Most (6/12, 50%) studies aimed to improve symptoms of depression; 3 interventions aimed at both anxiety and depressive symptoms and 2 studies aimed at improving social functioning difficulties. Owing to the high risk of bias across interventions and lack of similar outcome measures, a meta-analysis was not conducted. Retention rates across studies were regarded as good, with moderate to high retention. Overall, the findings indicated that predominantly self-administered self-help interventions improved well-being in the areas targeted by the intervention and identified additional areas of well-being that were positively affected by interventions. Few interventions supported psychological well-being that was different from those used by young people with a clinical diagnosis of mental illness or young people from neurodiverse backgrounds.

Conclusions: The findings, along with the advantages of self-help interventions, highlight the need for upscaling self-help interventions to better support vulnerable populations of young people who experience poor psychological well-being.

[ABSTRACT FROM AUTHOR]

Grobler, J Stefanus, Verna Stavric, and Nicola L Saywell. 2022

“Participant Perspectives of Automated Short Messaging Service Interventions to Promote Physical Activity: A Systematic Review and Thematic Synthesis.”

IN: Digital Health, July, 1–11

DOI: <https://doi.org/10.1177/20552076221113705>

Introduction Short messaging service has the potential to improve participation in physical activity in individuals with long-term health conditions. However, successful implementation relies on participant engagement with such programmes. The aim of this study was to undertake a systematic review of qualitative literature exploring participant perspectives of short messaging service-based interventions designed to promote physical activity for people with long-term health conditions.

Methods CINHALL, MEDLINE, SPORTSDiscus, Scopus and Web of Science were searched up to 15 February 2021 looking for participants’ perspectives on short messaging service programmes designed to promote physical activity in people with long-term health conditions. Included studies were analysed using thematic synthesis.

Results Eight studies involving 533 participants were included and analysed using the principles of thematic analysis and 10 descriptive themes were identified. These descriptive themes were further refined to develop five final analytical themes: taking control of my own health, from information to action, relationship with the programme, perfection required for success and increased expectations.

Discussion The findings agree with published work on the factors which influence behaviour. The findings from this synthesis demonstrate that automated short messaging service programmes to increase physical activity are generally acceptable. People report that these interventions support and encourage physical activity. The novel finding of this study was that having more regular and long-lasting contact has the potential to increase the expectations people have of healthcare services. This is a finding which needs to be considered and managed but should not discourage the use of automated short messaging service. [ABSTRACT FROM AUTHOR]

Jadhakhan, Ferozkhan, Holly Blake, Danielle Hett and Steven Marwaha. 2022
“Efficacy of digital technologies aimed at enhancing emotion regulation skills: Literature review”

IN: *Frontiers in Psychiatry* (7 Sep 2022): Digital Mental Health section

DOI: <https://doi.org/10.3389/fpsy.2022.809332>

Background: The impact of emotion regulation (ER) interventions on mental health and wellbeing has been extensively documented in the literature, although only recently have digital technologies been incorporated in intervention design. The aim of this review is to explore available published literature relating to the efficacy, barriers and facilitators of digital technologies in enhancing emotion/mood regulation skills.

Methods: A review of the literature was performed to explore the effectiveness of digital technology in enhancing ER skills. MEDLINE, CINAHL, PsycINFO and Web of Science databases were searched from inception to 31st August 2020. In addition, the first 10 pages of Google Scholar were examined for relevant articles. The following MeSH term and key words were used to identify relevant articles: “emotion regulation OR mood regulation” AND “intervention OR treatment OR program\$ OR therap\$” AND “digital technologies OR web-based OR mobile application OR App.” Reference lists of retrieved papers were hand searched to identify additional publications. Findings were summarized narratively.

Results: Titles and abstracts were reviewed by one reviewer in two phases, and confirmed by a second reviewer; discrepancies were resolved through discussion. First, the retrieved titles and abstracts were reviewed to identify relevant studies. Full texts of retrieved studies were then read to determine eligibility. The search resulted in 209 studies of which 191 citations were identified as potentially meeting the inclusion criteria. After reviewing the title and abstract of the 191 papers, 33 studies were identified as potentially meeting the inclusion criteria. Following full-text review, 10 studies met the inclusion criteria. Findings indicated the potential effectiveness of online, text-messaging, and smartphone interventions for enhancing ER skills.

Conclusion: There is encouraging evidence that digital technologies may be beneficial for enhancing ER skills and providing personalized care remotely. Digital technologies, particularly the use of smartphones, were instrumental in facilitating assessments and delivering online self-help interventions such as cognitive behavioral therapy. Continued research is required to rigorously evaluate the effectiveness of digital technologies in ER skills and carefully consider risks/benefits while determining how emerging technologies might support the scale-up of ER skills and mental health treatment. [ABSTRACT FROM AUTHOR]

Stavric, Verna, Nicola M. Kayes, Usman Rashid and Nicola L. Saywell. 2022
“The Effectiveness of Self-Guided Digital Interventions to Improve Physical Activity and Exercise Outcomes for People With Chronic Conditions: A Systematic Review and Meta-Analysis.”

IN: *Frontiers in Rehabilitation Sciences* vol. 3: 925620

DOI: <https://doi.org/10.3389/fre.2022.925620>

Objective The aim of this systematic review was to determine the effectiveness of self-guided digital physical activity (PA) and exercise interventions to improve physical activity and exercise (PA&E) outcomes for people living with chronic health conditions.

Digital health interventions, especially those with minimal human contact, may offer a sustainable solution to accessing ongoing services and support for this population.

Methods A comprehensive and systematic search was conducted up to December 2021, through seven databases, for randomized trials that evaluated the effect of self-guided web- or internet-based PA interventions on physical activity or exercise outcomes. Included studies had to have interventions with minimal human contact and interaction with participants needed to be automatically generated. All studies were screened for eligibility and relevant data were extracted. Two independent reviewers assessed the risk of bias using the Cochrane risk of bias tool. Standardized mean differences and 95% confidence intervals (CI) were calculated. PA data were pooled, and forest plots were generated.

Results Sixteen studies met the eligibility criteria and included a total of 2,439 participants. There was wide variation in health conditions and intervention characteristics in mode and parameters of delivery, and in the application of theory and behavioral strategies. Self-reported PA in the intervention group was greater than controls at the end of the intervention [standardized mean difference (SMD) 0.2, 95% CI = 0.1, 0.3] and at follow up (SMD 0.3, 95% CI 0.2–0.5). The difference in objectively measured PA was small and non-significant (SMD 0.3, 95% CI –0.2 to 0.9). All interventions included behavioral strategies and ten of the sixteen were underpinned by theory.

Conclusions Self-guided digital PA&E interventions provided a positive effect on PA immediately after the intervention. An unexpected and positive finding was a sustained increase in PA at follow-up, particularly for interventions where the behavioral strategies were underpinned by a theoretical framework. Interventions with minimal contact have the potential to support sustained PA engagement at least as well as interventions with supervision. [ABSTRACT FROM AUTHOR]

Bamgboje-Ayodele, et al. 2021

“Barriers and Facilitators to the Availability of Efficacious Self-Directed Digital Health Tools for Adults Living with Cancer and Their Caregivers: A Systematic Literature Review and Author Survey Study.”

IN: Patient Education and Counseling 104 (10): 2480–89

[abstract only]

DOI: <https://doi.org/10.1016/j.pec.2021.03.012>

Objective This study aimed to examine barriers and facilitators to the dissemination of efficacious self-directed digital health tools for adults affected by cancer, and quantify funding used to develop and evaluate these digital health tools.

Results Of 1314 screened articles, 29 articles describing 26 tools met the inclusion criteria. From 26 surveys sent, 12 were completed, 6 of which described disseminated tools. Whilst researchers’ motivation and infrastructure support facilitate tool dissemination, limited funds, lack of infrastructure and limited research timelines are the most common barriers. A median of AUD\$250,000 was spent on tools not disseminated to end-users.

Conclusion Although incorporating UCD processes in the development of digital health tools is important, it is imperative to integrate implementation processes into the planning stages of tool development to ensure dissemination.

Practice Implications Researchers, academic institutions, funding agencies and government and non-government organisations all have roles to play to support long-term implementation. [ABSTRACT FROM AUTHOR]

Borghouts, Judith, et al. 2021

“Barriers to and Facilitators of User Engagement With Digital Mental Health Interventions: Systematic Review.”

IN: Journal of Medical Internet Research 23 (3): e24387

DOI: <https://doi.org/10.2196/24387>

Background Digital mental health interventions (DMHIs), which deliver mental health support via technologies such as mobile apps, can increase access to mental health support, and many studies have demonstrated their effectiveness in improving symptoms. However, user engagement varies, with regard to a user's uptake and sustained interactions with these interventions.

Objective This systematic review aims to identify common barriers and facilitators that influence user engagement with DMHIs.

Methods A systematic search was conducted in the SCOPUS, PubMed, PsycINFO, Web of Science, and Cochrane Library databases. Empirical studies that report qualitative and/or quantitative data were included.

Results A total of 208 articles met the inclusion criteria. The included articles used a variety of methodologies, including interviews, surveys, focus groups, workshops, field studies, and analysis of user reviews. Factors extracted for coding were related to the end user, the program or content offered by the intervention, and the technology and implementation environment. Common barriers included severe mental health issues that hampered engagement, technical issues, and a lack of personalization. Common facilitators were social connectedness facilitated by the intervention, increased insight into health, and a feeling of being in control of one's own health.

Conclusions Although previous research suggests that DMHIs can be useful in supporting mental health, contextual factors are important determinants of whether users actually engage with these interventions. The factors identified in this review can provide guidance when evaluating DMHIs to help explain and understand user engagement and can inform the design and development of new digital interventions. [ABSTRACT FROM AUTHOR]

Bevan Jones, Rhys, et al. 2020

“Practitioner Review: Co-design of Digital Mental Health Technologies with Children and Young People.”

IN: Journal of Child Psychology & Psychiatry 61 (8): 928–40

DOI: <https://doi.org/10.1111/jcpp.13258>

Background: There is increasing interest in digital technologies to help improve children and young people's mental health, and the evidence for the effectiveness for these approaches is rising. However, there is concern regarding levels of user engagement, uptake and adherence. Key guidance regarding digital health interventions stress the importance of early user input in the development, evaluation and implementation of technologies to help ensure they are engaging, feasible, acceptable and potentially effective. Co-design is a process of active involvement of stakeholders, requiring a change from the traditional approaches to intervention development. However, there is a lack of literature to inform the co-design of digital technologies to help child and adolescent mental health.

Methods: We reviewed the literature and practice in the co-design of digital mental health technologies with children and young people. We searched Medline, PsycInfo and Web of Science databases, guidelines, reviews and reference lists, contacted key authors for relevant studies, and extracted key themes on aspects of co-design relevant to practice. We supplemented this with case studies and methods reported by researchers working in the field.

Results: We identified 25 original articles and 30 digital mental health technologies that were designed/developed with children and young people. The themes identified were as follows: principles of co-design (including potential stakeholders and stages of involvement), methods of involving and engaging the range of users, co-designing the prototype and the challenges of co-design.

Conclusions: Co-design involves all relevant stakeholders throughout the life and research cycle of the programme. This review helps to inform practitioners and researchers interested in the development of digital health technologies for children and young people. Future work in this field will need to consider the changing face of

technology, methods of engaging with the diversity in the user group, and the evaluation of the co-design process and its impact on the technology. [ABSTRACT FROM AUTHOR]

Chan, Steven, Luming Li, John Torous, David Gratzner, and Peter M. Yellowlees. 2019
“Review and Implementation of Self-Help and Automated Tools in Mental Health Care.”

IN: *Psychiatric Clinics of North America* 42 (4): 597–609

[abstract only]

DOI: <https://doi.org/10.1016/j.psc.2019.07.001>

Self-help and automated technologies can be useful for behavioral and mental health education and interventions. These technologies include interactive media, online courses, artificial intelligence–powered chatbots, voice assistants, and video games. Self-help media can include books, videos, audible media like podcasts, blog and print articles, and self-contained Internet sites. Social media, online courses, and mass-market mobile apps also can include such media. These technologies serve to decrease geospatial, temporal, and financial barriers. This article describes different self-help and automated technologies, how to implement such technologies in existing clinical services, and how to implement according to patient needs. [ABSTRACT FROM AUTHOR]

Rathbone, Amy Leigh, Laura Clarry, and Julie Prescott. 2017

“Assessing the Efficacy of Mobile Health Apps Using the Basic Principles of Cognitive Behavioral Therapy: Systematic Review.”

IN: *Journal of Medical Internet Research* 19 (11): e399

<https://doi.org/10.2196/jmir.8598>

Background: Cognitive behavioral therapy (CBT) in its basic principle has developed itself as a stand-alone, substantial method of therapy. With effective application in therapy for a range of mental health issues, the spread of CBT methods to Web-based therapy sources is evident. The development of mobile phone apps using CBT principles is increasing within the research area. Despite the move to Web-based methods of therapy, it is argued that these methods lack the same efficacy of face-to-face therapy sessions.

Objective: The aim of this review was to assess extent research findings with regard to the effectiveness of CBT-related mobile health (mHealth) apps. By assessing only studies employing a randomized controlled trial design, the review aimed to determine app efficacy within the highly regarded method of investigation.

Methods: A comprehensive literature search was conducted across several databases. Search results were filtered, and results were subject to strict inclusion and exclusion criteria because of the nature of the review. Where possible, analysis of effect size was calculated and results reported.

Results: A total of 8 studies investigating the effectiveness of mHealth CBT-related apps across a range of mental health issues were reviewed. Three studies used the app against a control group, and 5 studies used the app intervention against another form of treatment or intervention. A range of effect sizes were seen across all included studies ($d = -0.13$ to 1.83 ; 0.03 - 1.44), with the largest effects often being seen when comparing the data from pre- to posttest for the app engaged group.

Conclusions: The studies reviewed support the use of mHealth apps containing CBT principles for a range of mental health issues. However, the effectiveness over longer time periods should be assessed. Researchers and professionals should seek to collaborate effectively when creating new apps to enhance their effectiveness as a treatment for the general public. [ABSTRACT FROM AUTHOR]

App Testing

Pathak, Amrita. 2022

“11 Best Mobile Testing Tools to Help You Build Better Apps”

IN: Geekflare, May 5, 2022

<https://geekflare.com/mobile-app-testing-tools/>

This post discusses why testing is an important part of mobile app development, and presents a number of commonly used testing tools, including some free or low-cost products.

Mixed interventions (online/offline and/or mediated/self-directed treatments)

Hodson, Elise, et al. 2019

“Co-Design in Mental Health; Mellow: A Self-Help Holistic Crisis Planning Mobile Application by Youth, for Youth.”

IN: Design Journal 22 (April): 1529–42

DOI: <https://doi.org/10.1080/14606925.2019.1594975>

This paper reports on a community-based project to collaboratively research, design and test an integrated digital crisis planning tool for youth ages 13 to 24. Research goals included understanding: what crisis means to the target group and what strategies they employ for coping with crisis; the ways youth in crisis are most likely to communicate; how new technologies can help deliver the services youth need. The project was established with several guiding principles: that students should act as the front line researchers and designers with the guidance of faculty and community partners; that we should aim to move beyond consultation to truly participatory design methods involving end-users in needs identification, idea generation, design development and testing; and that by having the students interface with the end-users, we would alter the power balance by building trust and avoiding a top-down approach. [ABSTRACT FROM AUTHOR]

note: the article describes the creation of ‘Mellow’, a mobile application that includes journaling, crisis planning tools, community resources and emergency calling.

Feil, Edward G., Peter G. Sprengelmeyer, and Craig Leve. 2018

“A Randomized Study of a Mobile Behavioral Parent Training Application.”

IN: Telemedicine & E-Health 24 (6): 457–63

DOI: <http://dx.doi.org/10.1089/tmj.2017.0137>

Background/Introduction: Never before have parents had such immediate access to parenting support. The extension of the Internet to smartphones, offers the opportunity to provide families with the highest-quality information at the time and place that it can be the most useful. However, there remain considerable barriers to getting the right information to the right people at the right time.

Materials and Methods: This study includes the initial feasibility testing of a smartphone application “ParentNet” that attempts to deliver on the potential of empirically supported therapy by connecting family members with specific behavioral goals and outcomes in real time. Participation was solicited from community parenting support groups and through online social media. Data were collected from 73 parents and 88 children on child behavior (adult only) and satisfaction.

Results: Data analyses showed positive satisfaction and utilization results: (1) users rated the ParentNet app very positively (i.e. 85% of caregivers and 88% of youth would recommend the app to others), and (2) parenting behavior was improved with a small/moderate effect-size.

Discussion and Conclusions: Findings from this initial testing are reviewed along with future development possibilities to be considered. Limitations of small pilot sample and brief administration period could have reduced effects. Further study would include a more robust sample. [ABSTRACT FROM AUTHOR]

Sicouri, Gemma, et al. 2018

“Toward Father-friendly Parenting Interventions: A Qualitative Study”

IN: Australian & New Zealand Journal of Family Therapy 39 (2): 218-231

<https://doi.org/10.1002/anzf.1307>

Levels of father participation in parenting interventions are often very low, yet little is known about the factors which influence father engagement. We aimed to qualitatively explore perceived barriers to, and preferences for, parenting interventions in a community sample of fathers. Forty-one fathers across nine focus groups were interviewed using a semi-structured interview. Data were analysed using inductive thematic analysis. Key barriers to father participation identified included: the perception that interventions are mother-focused; beliefs about gender roles regarding parenting and help-seeking; mothers' role as 'gatekeeper'; lack of knowledge and awareness of parenting interventions; and lack of relevance of interventions. Fathers reported preferences for specific content and intervention features, facilitator characteristics, practical factors, and highlighted the need for father-targeted recruitment and advertising. Many of the barriers and preferences identified are consistent with previous research; however, fathers' beliefs and attitudes around gender roles and help-seeking, as well as the perception that interventions are predominantly mother-focused, may be key barriers for community fathers. Strategies to overcome these barriers and better meet the needs of fathers in promoting and delivering parenting interventions are discussed. [ABSTRACT FROM AUTHOR]

Sanders, Matthew, Cassandra Dittman, Susan Farruggia, and Louise Keown. 2014
“A Comparison of Online Versus Workbook Delivery of a Self-Help Positive Parenting Program.”

IN: Journal of Primary Prevention 35 (3): 125–33

DOI: <https://doi.org/10.1007/s10935-014-0339-2>

A noninferiority randomized trial design compared the efficacy of two self-help variants of the Triple P-Positive Parenting Program: an online version and a self-help workbook. We randomly assigned families of 193 children displaying early onset disruptive behavior difficulties to the online (N = 97) or workbook (N = 96) interventions. Parents completed questionnaire measures of child behavior, parenting, child maltreatment risk, personal adjustment and relationship quality at pre- and post-intervention and again at 6-month follow up. The short-term intervention effects of the Triple P Online program were not inferior to the workbook on the primary outcomes of disruptive child behavior and dysfunctional parenting as reported by both mothers and fathers. Both interventions were associated with significant and clinically meaningful declines from pre- to post-intervention in levels of disruptive child behavior, dysfunctional parenting styles, risk of child maltreatment, and inter-parental conflict on both mother and father report measures. Intervention effects were largely maintained at 6-month follow up, thus supporting the use of self-help parenting programs within a comprehensive population-based system of parenting support to reduce child maltreatment and behavioral problems in children. [ABSTRACT FROM AUTHOR]

Analogous self-guided interventions

Mudge, Suzie, Ann Sezier, Deborah Payne, Greta Smith, and Nicola Kayes. 2020
“Pilot Trial of The Living Well Toolkit: Qualitative Analysis and Implications for Refinement and Future Implementation.”

IN: BMC Health Services Research 20 (1): 1–12

<https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-4920-5>

Background: Following a neurological event, people's long-term health and well-being is hampered by a system that struggles to deliver person-centred communication and

coordinated care and fails to harness individual and family capability to live well with the condition. We aimed to implement and evaluate a toolkit package to support these processes for people with long-term neurological conditions.

Methods: This is a multi-phased study drawing on the principles of participatory research. In this pilot phase, the toolkit package was introduced to clinicians, who introduced it to clients in four neurorehabilitation settings (inpatient and community-based). Individual and focus group interviews were carried out with clients (n = 10) and clinicians (n = 9). Data were categorised by the four components of Normalisation Process Theory (NPT), and data within each component was then coded inductively. This analysis was used to inform revisions to the toolkit package and wider implementation processes.

Results: There was widespread support for the principles underpinning the toolkit package from clients and clinicians. However, it was less clear how the client toolkit could support these principles in clinical practice which impacted buy-in. The flexibility of use of the client toolkit, which we encouraged, made it difficult for clinicians and clients to be clear about its purpose and for clinicians to operationalise in practice. Clinicians and clients identified a number of barriers that limited the time, energy and work users were able or prepared to invest, to the extent that uptake of the toolkit package was modest. Use of the toolkit package appeared more likely when clinicians perceived it to augment existing processes (e.g. goal setting) rather than detract from 'doing' therapy. This analysis was used to inform revisions to the toolkit package, including simplification of the client toolkit, development of videos with examples of use and a modular and reflective training package for clinical services. The refinements were intended to improve sense-making and minimise the cognitive barriers associated with implementation of a new intervention.

Conclusion: Understanding how supporting the client toolkit could add value to the therapeutic encounter was necessary for clinicians to invest time and perceive the worth of the toolkit package. [ABSTRACT FROM AUTHOR]

Hartung, Paul J. and Sara Santilli. 2018

“My Career Story: Description and Initial Validity Evidence”

IN: Journal of Career Assessment, 26(2), 308–321

[abstract only] <https://doi.org/10.1177/1069072717692980>

My career story (MCS) comprises a self-guided autobiographical workbook designed to simulate career construction counseling. The MCS contains a series of questions from the Career Construction Interview to elicit a life-career story and reveal a life theme that are then related to a current career problem indicated by the workbook user. Reflecting on the answers to the questions aims to promote key life-design goals of adaptability, narratability, intentionality, and action. After describing its development and use, a case illustration and initial preliminary validity study of the MCS is presented. Latent semantic analysis, a method for determining meaning similarity of words and passages within bodies of text, indicated a mean agreement level of .81 between MCS life portraits constructed by participants (N =10) and those constructed for the participants by experts in career construction counseling. The MCS shows some initial promise for self-guided career intervention to increase self-reflection and ability to tell and enact one's career story. Future research is needed to support the validity of the MCS workbook. [ABSTRACT FROM AUTHOR]

Peer-to-Peer

Mindel, Charlotte and Crystal Oppong; Kooth. undated [c. 2020]

Enhancing Peer Support on Kooth: A Progress Report

https://assets.ctfassets.net/7txezq3rcjip/7ivSoL6yyVtclZRTHK7C5I/0c96bee9ed0df4ca6c8344d06b67cbf3/NB_Kooth_P2P_report_doc_AW_WEB.pdf

Kooth is an online counselling service which offers children and young people access

to mental health support via a suite of applications: magazines, forums, activity centres, messaging and live counselling. This interim report looks at a new initiative to expand its community based support into a more integrative approach to mental health, where individuals can ask questions to the community or engage in responding to others' questions. It finds that a focus on enhancing the peer support offer, and measuring its value, over the past 18-months has resulted in some exciting outcomes.

Epstein, Marina, Sabrina Oesterle, and Kevin P. Haggerty. 2019
“Effectiveness of Facebook Groups to Boost Participation in a Parenting Intervention.”

IN: Prevention Science 20 (6): 894–903

DOI: <https://doi.org/10.1007/s11121-019-01018-0>

Although family-based prevention programs have been shown to be effective at reducing adolescent substance use, it is often difficult and costly to recruit and retain parents in programs administered in person. The current study tested whether program engagement and parenting practices could be improved by offering parents in a self-directed family program access to a private Facebook group. Parents of middle school children (N = 103) were recruited through paid Facebook ads to a 5-week self-directed teen substance use prevention program to be completed at home together by parents and their children. Two thirds of parents (N = 72) were randomly assigned to a moderated private Facebook group that provided a forum for parents in the study to interact with each other, and one third (N = 31) were randomized to use the intervention materials without additional support. Relatively few parents participated in the Facebook group and most did not find the experience useful. However, satisfaction with the program assessed 3 months after program completion was high among all parents and most parents engaged with the materials, irrespective of Facebook group assignment. Overall, parents reported significantly lower conflict and more household rules 6 months post-intervention compared to baseline. Parenting practices did not change more among those assigned to the Facebook group than among parents who used the materials on their own. The current findings suggest that providing opportunities for parents to interact online while participating in a self-directed family intervention may not help to increase engagement or improvements in parenting practices, particularly when few parents engage with each other. [ABSTRACT FROM AUTHOR]

Prescott Julie, Terry Hanley and Katalin Ujhelyi. 2017

“Peer Communication in Online Mental Health Forums for Young People: Directional and Nondirectional Support”

IN: JMIR Mental Health 4(3):e29

<https://doi.org/10.2196/mental.6921>

Background: The Internet has the potential to help young people by reducing the stigma associated with mental health and enabling young people to access services and professionals which they may not otherwise access. Online support can empower young people, help them develop new online friendships, share personal experiences, communicate with others who understand, provide information and emotional support, and most importantly help them feel less alone and normalize their experiences in the world.

Objective: The aim of the research was to gain an understanding of how young people use an online forum for emotional and mental health issues. Specifically, the project examined what young people discuss and how they seek support on the forum (objective 1). Furthermore, it looked at how the young service users responded to posts to gain an understanding of how young people provided each other with peer-to-peer support (objective 2).

Methods: Kooth is an online counseling service for young people aged 11-25 years and experiencing emotional and mental health problems. It is based in the United

Kingdom and provides support that is anonymous, confidential, and free at the point of delivery. Kooth provided the researchers with all the online forum posts between a 2-year period, which resulted in a dataset of 622 initial posts and 3657 initial posts with responses. Thematic analysis was employed to elicit key themes from the dataset.

Results: The findings support the literature that online forums provide young people with both informational and emotional support around a wide array of topics. The findings from this large dataset also reveal that this informational or emotional support can be viewed as directive or nondirective. The nondirective approach refers to when young people provide others with support by sharing their own experiences. These posts do not include explicit advice to act in a particular way, but the sharing process is hoped to be of use to the poster. The directive approach, in contrast, involves individuals making an explicit suggestion of what they believe the poster should do.

Conclusions: This study adds to the research exploring what young people discuss within online forums and provides insights into how these communications take place. Furthermore, it highlights the challenge that organizations may encounter in mediating support that is multidimensional in nature (informational-emotional, directive-nondirective). [ABSTRACT FROM AUTHOR]

Chewning, Lisa V., and Beth Montemurro. 2016

“The Structure of Support: Mapping Network Evolution in an Online Support Group.”

IN: *Computers in Human Behavior* 64 (November): 355–65

[abstract only]

DOI: <https://doi.org/10.1016/j.chb.2016.07.006>

Online social support groups enable individuals to create specialized networks that provide access to a variety of resources. Although the efficacy of such communities has been studied, less understood are the structural mechanisms behind their emergence and the ways these mechanisms foster ties and may subsequently affect provision of support. This paper analyzes an online support group (OSG) for parents of children with ADD/ADHD over a one-year period, focusing on the interplay of structure and technology in the creation of the emergent support network. Findings highlight a dual network structure that supports a variety of relationships and levels of participation. Whereas a core group of members generates the initial content, the network becomes self-sustaining and supports a fluid membership between active and inactive members. Structurally, the network offers four types of support: direct, indirect, relational, and functional. Together, findings emphasize the interplay among technology, structure, and communication in advancing specialized channels of communication in a digital age. [ABSTRACT FROM AUTHOR]

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