

Digital tools for self-management of adult ADHD (brief version)

A rapid mixed-methods review

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Glossary

Applied relaxation training: A treatment that teaches individuals to quickly relax in response to stressful situations. Training teaches individuals to relax in shorter intervals over time in response to stress, and to recognise the first signs of stress in everyday life

Bias: A term used to indicate the deviation of results or inferences from the actual truth.

Cognitive Behavioural Therapy (CBT): A goal-oriented form of psychotherapy that aims to change negative patterns of thinking that an individual feels about him or herself, abilities, and future. It is a useful short-term approach for addressing ADHD in adults with mood disorders or who suffer from anxiety and other emotional problems.

Cognitive training: Involves training specific aspects of your memory and other thinking skills. This is usually through an exercise or a game on a computer.

Executive Function: Mental skills that help people to control and coordinate other mental functions and abilities, such as planning or task completion. This deficit is common in those with ADHD.

Grey literature: Information not produced through traditional commercial or academic publishing e.g., government reports, conference papers, theses.

Heterogeneity: a measure of variability among included studies in a systematic review.

Intervention: An intervention in the context of ADHD refers to a specific strategy or set of strategies that has the effect of modifying an individual's behaviour, cognition, or emotional state, to improve the individual's functioning.

Meta-analysis: A form of data synthesis that typically appears as data table accompanying a systematic review. Shows the degree of effect of each included study, as well as an 'overall average'.

Non-randomised comparative study: a research design that compares two or more groups to evaluate an intervention, but without using random assignment to place participants into the groups.

PROSPERO: An international database of prospectively registered systematic reviews.

Protocol: The 'recipe' for how the review will be undertaken, established *a priori*.

Psychoeducation: A therapeutic intervention that focuses on enhancing education, support, and coping skills development to better understand and cope with illness.

Randomised controlled trial (RCT): a research study where participants are randomly assigned to different groups to test an intervention's effect, such as a new drug or treatment, against a control group. This process of random assignment helps minimize bias by ensuring the groups are comparable, making it the gold standard for proving whether an intervention causes a specific outcome.

Quality assessment: A process by which methodological quality and risk of bias is assessed in individual studies.

Search strategy: Used *a priori* to search, identify and select the appropriate and relevant evidence to answer the research question of a systematic review. Search terms are identified and arranged to retrieve eligible studies and information from electronic databases.

Standard deviation: A statistical measure showing how spread-out numbers in a dataset are from their average (mean).

Treatment as usual (TAU): The standard care or treatment that would typically be received outside of a research study.

Working Memory: A system in the brain that temporarily stores and processes the information needed for much more complex tasks such as reasoning, comprehension, and learning.

1. Summary

Attention Deficit Hyperactivity Disorder (ADHD) affects approximately 3% of adults worldwide, yet its persistence into adulthood has only recently been recognised. There are a range of digital technologies and tools that may help people with ADHD self-manage. To date, these types of technologies have only been assessed in children and young people.

We aimed to systematically assess what digital self-management tools exist for adults with ADHD, and what their effectiveness and acceptability is.

A rapid mixed-methods systematic review, searching three electronic databases up to 22nd August 2025. Studies were included if they assessed the impact of any digital self-management tool or intervention in adults with, or suspected of having, ADHD. Qualitative studies assessing the experience of using digital self-management tools were also included. Narrative synthesis, synthesis without meta-analysis, and thematic synthesis approaches were used to synthesise study findings. Study quality was assessed using the Quality Assessment with Diverse Studies tool.

We found...



29 reports
describing
30 studies



Evidence from
2791 people with
ADHD (and
controls) and 13
countries



15 distinct
named tools
and 9
unnamed tools



5 main types of digital tool
and 3 types of indirect
evidence with
psychoeducation the most
common

Across digital self-management types, the **evidence showed either benefits of digital self-management, or no difference** (either between groups or before and after the intervention).

Of 14 studies assessing the effect on ADHD symptoms, **64% found a beneficial effect** in at least one of the assessed outcomes. **No study found any negative effects** of digital self-management on key clinical outcomes.

Synthesis of the qualitative data identified six key themes that speak to features that improve engagement with digital self-management tools, barriers to their use and areas for improvement, as well as considering when and how people use these tools and what the potential benefits are.

Conclusions: The majority of the evidence for digital self-management tools for adults with ADHD is for psychoeducational tools. There is some evidence of benefits of such tools for improving ADHD symptoms, mixed evidence for other outcomes, and we did not identify any harms. People designing digital self-management tools should do so with input from those with lived experience. There is a need for more evidence assessing the safety and effectiveness of these tools, using robust methodologies, and in real world settings.

2. Background

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental condition marked by inattention, hyperactivity, and impulsivity. While often associated with childhood, 40–60% of cases persist into adulthood (Faraone et al., 2021; Franke et al., 2018; Kessler et al., 2005), with adult prevalence estimates of 2.5-3.1% (Ayano et al., 2023; Chaulagain et al., 2023; Simon et al., 2009). Adult ADHD remains under-recognised, with fewer than 20% of individuals accurately diagnosed and treated (Ginsberg et al., 2014; Rivas-Vazquez et al., 2023) (Barkley & Brown, 2008; Ginsberg et al., 2014; Newcorn et al., 2007). Studies suggest many adults remain undiagnosed, creating significant barriers to accessing support (Du et al., 2025; Hoeffding et al., 2018; Naya et al., 2021).

Adult ADHD is linked to attentional and executive functioning difficulties, emotional dysregulation, and higher rates of psychiatric comorbidities such as anxiety, depression, substance use and suicidal behaviours (Choi et al., 2022; Hartman et al., 2023; Impey & Heun, 2012). These challenges contribute to sleep problems, poor educational attainment, employment difficulties, relationship breakdowns, and increased risk of criminal justice involvement (Biederman et al., 2006; Díaz-Román et al., 2018; Ginsberg et al., 2014; Murphy & Barkley, 1996). At the same time, qualitative research highlights that ADHD can also convey strengths such as creativity, resilience, hyperfocus, and cognitive flexibility (Mahdi et al., 2017; Nordby et al., 2023; Schippers et al., 2022; Sedgwick et al., 2019).

Management options include lifestyle changes, workplace adjustments, talking therapies, and medication, often most effective in combination (Li & Zhang, 2024). However, access to medication, and sometimes workplace accommodations, typically require a formal diagnosis. Diagnosis itself is hindered by misidentification, stigma, overlapping symptoms, and long waiting times, with UK adults facing delays ranging from months to years (ADHD UK., 2023; Cooper et al., 2018; Johnson et al., 2021; NHS England, 2025; Price et al., 2024). These delays restrict access to treatment and negatively affect quality of life and self-understanding (Holden & Kobayashi-Wood, 2025; Long & Coats, 2022).

Self-management tools are therefore important. They can support individuals awaiting diagnosis, those unable or unwilling to use medication, and those seeking complementary strategies alongside treatment. Increasingly, attention has turned to digital health interventions, encouraged by NHS policy and widespread technology use (UK Government & NHS, 2025). Digital tools explored for ADHD include mobile apps, internet-based therapies, video games, virtual reality, and neurofeedback (Hernández- Capistrán et al., 2025; Hosseinnia et al., 2025; Jiang et al., 2022; Păsărelu et al., 2020; Rodrigo-Yanguas et al., 2022; Satu et al., 2025; Shou et al., 2022; Van Doren et al., 2019; Wiebe et al., 2022). While early evidence suggests potential benefits, many tools remain underdeveloped and require more robust evaluation, particularly for long-term effects and adult populations.

Further, much of these reviews focus on broader mental health conditions, or digital assessment rather than self-management, or map the evidence rather than assess effectiveness. Research specifically on digital self-management for ADHD largely targets children and young people (Gudka et al., 2025; Powell et al., 2018). While these studies highlight potential, particularly for psychoeducation, evidence is limited by methodological weaknesses. To date, no systematic review has examined digital self-management interventions specifically for adults with ADHD, highlighting a gap in the evidence base.

HIEM Neurodiversity Portfolio

In response to growing recognition of adult ADHD and rising demand for services, Health Innovation East Midlands (HIEM) is leading work in 2025–2026 as part of a wider Neurodiversity portfolio, initially focused on adult ADHD. The programme aims to improve care pathways by identifying, developing, and adopting digital technologies that support assessment, self-management, and service delivery across the East Midlands. By integrating insights from data, research, innovation, and clinical practice, HIEM seeks to support systems to address delays in assessment, limited post-diagnosis support, and variation in local services. Collaboration with Integrated Care Boards, clinicians, innovators, and people with lived experience is central, alongside mapping services, synthesising evidence, and creating spaces for testing digital tools. Anticipated impacts include better use of digital technologies, improved experiences for people with lived experience of ADHD, stronger partnerships, and practical guidance for future adoption. This rapid review will inform innovation and evidence-based implementation in clinical and community settings.

Aims of the review

This review therefore aims to address the existing gaps and support the HIEM neurodiversity portfolio, by synthesising the evidence for digital self-management tools and interventions for adults with ADHD, to assess what digital self-management tools for adults currently exist and whether they are beneficial in this context. In doing so, this review aims to highlight the quality of the existing evidence, as well as any gaps in the literature. The review aimed to address the question: What is the impact of using digital tools for the self-management of adult ADHD?

Please note that it is beyond the scope of this review to assess the compliance of identified tools with regulatory standards, including medical device compliance, and Digital Technology Assessment Criteria (DTAC)¹ (which considers clinical safety, technical security, interoperability, usability, accessibility and data protection standards), and as such this review does not comment on commercial readiness.

3. Methods

This review was conducted in accordance with latest guidance regarding conducting rapid reviews (Garritty et al., 2024) and adhered to PRISMA guidelines. The protocol for the review was registered on PROSPERO (CRD420251167611).

Search Strategy: We searched Embase, Medline and PsycInfo for English language studies from inception to August 2025. Search terms covered ADHD, self-management and digital technologies. To reduce irrelevant results, child-related terms were excluded from titles only, ensuring adult-focused studies were prioritized while minimizing loss of relevant content. Reference lists of any identified systematic reviews were also screened. Abstracts were excluded unless they provided sufficient detail on interventions and outcomes. The full search strategy can be found in Appendix A.

Study selection: The study eligibility criteria are summarised in Table 1. Search results were deduplicated in Endnote and screened in Rayyan. Two reviewers independently screened titles and abstracts, and any discrepancies were resolved through discussion. Full texts were screened for inclusion, with one reviewer screening all and another checking 20%. Data

¹ <https://transform.england.nhs.uk/key-tools-and-info/digital-technology-assessment-criteria-dtac/>

extraction was performed using Excel, focusing on participant characteristics, interventions, comparators, outcomes, study design, and country. Key data were verified for accuracy.

Table 1. Inclusion and exclusion criteria

	Inclusion criteria	Exclusion criteria
Population	Adults (≥ 18 years) with ADHD or be suspected as having ADHD	- Children and young people - Parents of young people - Healthcare professionals
Intervention	Digital self-management tools (e.g., apps, websites) enabling self-guided activities	- Non-digital interventions - Digital tools requiring professional input
Comparator	Any (including studies with no comparator groups)	N/A
Outcomes	- Effectiveness measures (e.g., ADHD symptoms, quality of life, mental health) - Acceptability (e.g., adherence, engagement, satisfaction) - Service access, impacts on healthcare service use	Outcomes that do not speak to intervention effectiveness, acceptability or participant experience
Study design	Any (including qualitative)	Design or development studies that do not report any results

Synthesis and quality assessment: Studies were grouped by type of digital self-management intervention. Due to heterogeneity in design, comparators, and outcomes, meta-analysis was not feasible. Instead, synthesis followed Synthesis Without Meta-analysis (SWiM) guidelines (Campbell et al., 2020), using vote counting based on direction of effect to summarize effectiveness. Qualitative data were analysed thematically (Thomas & Harden, 2008), with extracted data coded into themes and subthemes to highlight common experiences and insights. Quantitative and qualitative findings were integrated narratively. Study quality was assessed using the validated Quality Assessment with Diverse Studies (QuADS) tool (Harrison et al., 2021). In line with rapid review guidance, study quality was assessed by one reviewer and a second verified the judgements.

4. Results

Search results

The database search identified 1827 records. An additional 146 records were identified by searching reference lists of relevant existing systematic reviews. After deduplication, 1466 records underwent title and abstract screening, and of these 146 underwent full text screening. In total, 29 reports were included in the review, describing 30 studies. Figure 1 shows the PRISMA flow diagram of search and screening results. Details of the included studies can be found in Table 4. More detailed information about each tool can be found in Appendix 2.

Study characteristics

There was a total of 2791 participants across the 30 studies, with a median sample size of 53 (range 3-552). Studies were most frequently conducted in the USA (n=8); Norway (n=6), and Sweden (n=4).

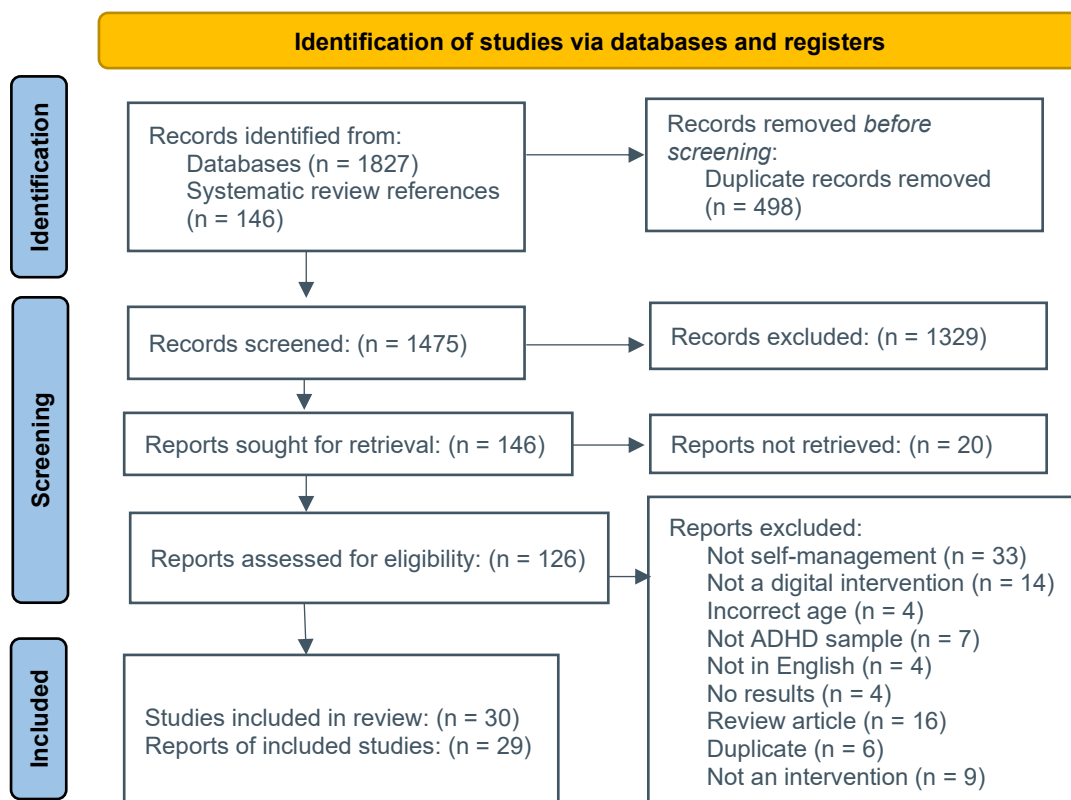


Figure 1. PRISMA flow chart

There were 10 randomised controlled trials (RCTs), one subgroup analysis of an RCT, one study using a multiple randomised trial design, three non-randomised comparative studies, ten feasibility and/or usability studies (seven without effectiveness data), three design/development studies, one pre-test post-test control group study, and one mixed methods randomised study. Twelve studies reported qualitative data from interviews, surveys, or feedback sessions.

Eighteen studies included one or more control groups (22 in total). The control groups varied from treatment-as-usual (TAU) (n=4), waitlist controls (n=4), active non-digital controls (n=6), other digital self-management tools (n=3), or alternative versions of the same intervention (n=4; two of which were reported in the same study). One study involved both groups receiving psychoeducation but only the intervention group received reminders.

Twenty-one studies tested named apps or online interventions, with 15 distinct named tools (Table 2). The most common were *MyADHD* (n=5), *Cogmed* (n=2), and *AwareMe ADHS* (n=2).

Seventeen studies assessed ADHD symptoms using nine different measures, most often the Adult ADHD Self-Report Scale (ASRS, n=9; Table 3).

Further details on interventions and outcomes are provided in Appendices 2 and 3.

Table 2. Number of studies reporting each app or online intervention and their availability in the UK

Name of App or intervention	Number of studies	Availability in UK
Adult ADHD app	1	Yes
AttenFocus	1	No
AwareMe ADHS	2*	No
CANreduce	1	No
Cogmed	2	Yes
FOCUS ADHD	1	Yes
Focus Check	1	No
In Focus	1	No
Inflow	1	Yes
Living SMART	1	No
My Friendly Mind	1	No
MyADHD	5	Yes
NUMO	1	Yes
Terabot	1	No
Tokadi	1	No
Unnamed	9	N/A

*In one study AwareMe ADHS was the control group intervention

Table 3. Measures of ADHD symptoms used in the included studies

Method of assessing ADHD symptom improvement	Number of studies
Adult ADHD Self-Report Scale (ASRS)	9
Conners' Adult ADHD Rating Scale (CAARS)	3
Barkley Adult ADHD Rating Scale (BAARS)	2
Integrated Diagnosis of Adult ADHD Revised (IDA-R)	2
Brown Attention Deficit Disorder Scale (BADDs)	1
Mind Wandering Questionnaire	1
ADHD Rating Scale (ADHD-RS)	1
Current Symptoms Scale (CSS)	1
Adult ADHD Self Report Scale (ADHS-SB) (German version)	1

Table 4. Details of the included studies

Study details	Population	Intervention(s)	Comparison
Psychoeducation with or without additions			
Ahlers 2022 RCT subgroup analysis Switzerland, Austria, Germany	• Sample size: 94 • Age: Mean 26.9 (SD 7.5) years • ADHD: Screened using the ASRS (score >13) • Medication: NR	CANreduce: A cannabis reducing self-help web-based programme including psychoeducation, diary, optional chat counselling, motivational emails and coping strategies.	N/A. The study did compare the ADHD group to participants who also received the same intervention but not have ADHD, however this group does not meet the review inclusion criteria and so only the ADHD subgroup was extracted.
Carvalho 2023 3 arm RCT Brazil	• Sample size: 73 • Age: Mean 35 (SD 7.0) years • ADHD: Full diagnostic criteria for ADHD according to the DSM-5 and a clinical ASRS score at diagnosis of ≥ 24 • Medication: All participants were taking medication	FOCUS ADHD: A mobile app that includes pill reminders, weekly symptom assessment, the option to invite a support network, and twice-a-week psychoeducation.	(1) FOCUS ADHD + discount: As well as the mobile app participants received a discount on the purchase of prescribed ADHD medication. (2) TAU.
Flobak 2021 Design / development study (qualitative methods) Norway	• Sample size: 109 • Age: Mean 36.0 (SD 9.0) years • ADHD: Self-reported diagnosis of ADHD • Medication: NR	MyADHD: An online intervention with psychoeducation, skill-building, coping techniques and video vignettes.	N/A
Jang 2021 Feasibility / usability, (using randomisation) Korea	• Sample size: 46 • Age: Intervention: 26.7 (SD 9.0); Control: 22.9 (SD 5.4) • ADHD: Significant attention problems, defined as being positive in 4 of 6 items on the ASRS. 21.7% had an ADHD diagnosis. • Medication: There was no significant difference between groups in medication dosage	Tokadi: An app with a conversational chatbot that includes a self-help programme with psychoeducation, mindfulness, chatbot-based CBT, quizzes and tools such as alarms and symptom tracking. Note: While this study also includes CBT and therefore could be classed as a self-	Active control group: Participants received a self-help book about ADHD.

Study details	Population	Intervention(s)	Comparison
		help CBT intervention, we have opted to class it as a psychoeducation intervention owing to the large psychoeducational component.	
Kenter 2022 Feasibility / usability study Norway	• Sample size: 5 • Age: Mean 38.4 (SD 16.3) years • ADHD: A previous diagnosis of ADHD. • Medication: NR	MyADHD: A structured self-guided psychoeducational intervention with elements from cognitive behavioural therapy, dialectal behavioural therapy and goal management training to target specific challenges experienced by adults with ADHD.	N/A
Kenter 2023 2 arm RCT Norway	• Sample size: 120 • Age: Mean 40.9 (SD 10.6) years • ADHD: A self-reported ADHD diagnosis • Medication: 83.3% were taking ADHD medication	MyADHD: A structured self-guided psychoeducational intervention with elements from cognitive behavioural therapy, dialectal behavioural therapy and goal management training to target specific challenges experienced by adults with ADHD.	Other digital self-management: A psychoeducation module with similar content but lacking exercises, videos or audio files.
Knouse 2022 Feasibility / usability study (pre-post design) USA	• Sample size: 240 • Age: Mean 29.2 (SD 7.1) years • ADHD: 84.2% had a current diagnosis of ADHD. • Medication: 60.4% were taking ADHD medication	Inflow: An app-based self-help programme including psychoeducation, goal setting and task lists	N/A
Luiu 2018 Feasibility / usability study (qualitative methods) Switzerland	• Sample size: 6 • Age: 20-55 years • ADHD: A previous diagnosis of ADHD • Medication: NR	An app-based psychoeducation intervention using tailored messages, advice, information, exercise and feedback.	N/A
Nordby 2021 Feasibility / usability study (pre-post design) Norway	• Sample size: 13 • Age: Mean 39.2 (SD 10.2) years • ADHD: A diagnosis of ADHD • Medication: 84.6% were taking ADHD medication	MyADHD: A self-guided internet delivered intervention with seven modules and including coping techniques, practice, action planning, a diary and vignettes.	N/A
Orel 2024 Non-randomised comparative study Ukraine	• Sample size: 63 • Age: 25-45 years • ADHD: A diagnosis of ADHD	NUMO: High intensity use of the NUMO app, which includes psychoeducation, exercises and a supportive community.	NUMO: Low intensity use of the NUMO app

Study details	Population	Intervention(s)	Comparison
	Medication: NR		
Seery 2025 Feasibility / usability study (qualitative methods) Ireland	- Sample size: 14 - Age: Mean 40.3 (SD 11.4) years - ADHD: 12 had a formal ADHD diagnosis and 2 self-identified as having ADHD - Medication: NR	The Adult ADHD app: A psychoeducation app aiming to provide evidence-based, trustworthy psychoeducation while waiting for ADHD services.	N/A
Selaskowski 2023 2 arm RCT Germany	- Sample size: 34 - Age: Mean 29.6 (SD 8.4) years - ADHD: Fulfilled the DSM-5 ADHD diagnostic criteria assessed with the IDA-R - Medication: 79.4% were taking a psycho-pharmacological treatment	A self-guided chatbot based psychoeducation app which offers higher levels of interaction and individualisation.	AwareMe ADHS: Conventional module app-based psychoeducation
Shelton 2022 Feasibility / usability study (cross-sectional survey with randomisation) USA	- Sample size: 240 - Age: Mean 34.7 (SD 11.4) years - ADHD: A diagnosis of ADHD - Medication: NR	An internet-based intervention including psychoeducation and content related to potential participant impairments.	Participants were allocated one of three versions of the same intervention (full, tailored or minimal).
Cognitive training			
Dentz 2020 2 arm RCT Canada	- Sample size: 44 - Age: Mean 38.9 (SD 12.8) years - ADHD: A diagnosis of ADHD - Medication: 63.6% were taking medication	Cogmed: An online computer programme to improve verbal and visiospatial working memory that was done five times a week for five weeks.	A placebo version of the programme.
Mawjee 2015 3 arm RCT Canada	- Sample size: 97 - Age: Mean 23.9 (SD 3.4) years - ADHD: A diagnosis of ADHD - Medication: 51.5% were taking medication	Cogmed (standard length): An online computer programme to improve working memory that was done for 45 minutes, five times a week, for five weeks. Cogmed (shortened length): The same intervention done for 15 minutes, five times a week for 5 weeks.	Waitlist control
Stern 2016 2 arm RCT Israel	- Sample size: 60 - Age: Mean 37.31 (SD 10.11) years - ADHD: A diagnosis of ADHD - Medication: 38% were taking ADHD pharmacological treatment	AttenFocus: An online cognitive training programme focused on improving executive function	Active control: A control version of the programme that had fewer executive demands.

Study details	Population	Intervention(s)	Comparison
Self-help CBT			
Pettersson 2017 3 arm RCT Sweden	- Sample size: 45 - Age: Intervention - Mean 38.9 (SD 8.5); Active control – Mean 39.6 (SD 12.4); Waitlist control – Mean 33.8 (SD 10.1) - ADHD: A primary diagnosis of ADHD - Medication: 48.9% were taking ADHD medication	In Focus – Self-help: Internet-based CBT in a self-help format, focusing on teaching compensatory techniques to handle ADHD-related difficulties.	(1) In Focus – Group: Internet based CBT with group sessions (2) Waitlist control
Information giving			
Glickman 2015a Feasibility / usability study USA	- Sample size: 6 - Age: 18-24 years - ADHD: A previous diagnosis of ADHD. - Medication: NR	Website for online self-help: The website includes links from established ADHD support websites, links to online ADHD forums, tools for coping with ADHD, information designed for college students with ADHD, timed audio and visual prompts, digital personal recording of usage and skill instruction	N/A
Glickman 2015b Pre-post control group design USA	- Sample size: 15 - Age: 18-24 years - ADHD: A previous diagnosis of ADHD. - Medication: NR	Website for online self-help: The website includes links from established ADHD support websites, links to online ADHD forums, tools for coping with ADHD, information designed for college students with ADHD, timed audio and visual prompts, digital personal recording of usage and skill instruction.	Active control: Participants viewed the Mayo Clinic website for 20 minutes. After week 1, the control group was given access to the intervention website.
Shahsavari 2024 Mixed methods (pre-post surveys and qualitative interviews) USA	- Sample size: 77 - Age: Mean 24 (SD NR) years - ADHD: Unclear if participants had ADHD - Medication: NR	My Friendly Mind: An app that provides assessment, monitoring, educational content and management recommendations	N/A
Attention monitoring / training			
Gibson 2015 Mixed methods (a randomised experiment and qualitative surveys) USA	- Sample size: 48 - Age: 18 years or older - ADHD: Participants had difficulties maintaining attention, and 15 had likely ADHD - Medication: NR	Focus check: An app using self-monitoring of on-task and off-task attention designed for students with attentional difficulties during university lectures or independent reading.	Waitlist control
Indirect evidence – Reminders			

Study details	Population	Intervention(s)	Comparison
Biederman 2019 Non-randomised comparative study USA	- Sample size: 552 - Age: Intervention – Mean 32.7 (SD 9.8); Control – Mean 31.5 (SD 7.7) years. - ADHD: Satisfied full diagnostic criteria for DSM-5 ADHD based on clinical assessment - Medication: Participants were starting a stimulant medication or had started within 6 months of study enrolment	Text message reminders: To remind participants to adhere to the medication regimen, contact the clinician for a prescription refill, and to pick up medication from the pharmacy, plus educational reminders about ADHD and its treatment	No text messages
Biederman 2020 Non-randomised comparative study USA	- Sample size: 448 - Age: Intervention 35.9 (SD 10.0); Control 33.7 (SD 7.0) years. - ADHD: Adults taking stimulant medication for ADHD - Medication: Adults taking stimulant medication for ADHD	Text message reminders: To remind participants to adhere to the medication regimen, contact the clinician for a prescription refill, and to pick up medication from the pharmacy, plus educational reminders about ADHD and its treatment	No text messages
Nordby 2022 Multiple RCT design Norway	- Sample size: 109 - Age: Mean 31.6 (SD 9.1) years - ADHD: Self-reported ADHD diagnosis - Medication: 78.9% were taking ADHD medication	MyADHD: A self-guided online psychoeducational intervention for ADHD. In this study, participants who did not complete any module within 48 hours were randomised to receive an automated SMS reminder.	MyADHD intervention with no SMS reminder
Indirect evidence – Guided self-management			
Moell 2015 2 arm RCT Sweden	- Sample size: 57 - Age: Intervention – Mean 36.3 (SD 11.1); Control – Mean 37.3 (SD 10.8) years - ADHD: A confirmed or probable diagnosis of ADHD - Medication: NR	LivingSMART: An online intervention involving coaching and education about smartphone apps to improve organisation skills and attention.	Waitlist control
Nasri 2023 3 arm RCT Sweden	- Sample size: 104 - Age: Intervention 1 – Mean 36.7 (SD 11.4); Intervention 2 – Mean 35.97 (SD 9.4); Control – Mean 37.2 (SD 10.3) years - ADHD: ADHD diagnosis according to DSM-IV and >16 points on one of the subscales of the ASRS	Internet-based CBT: iCBT involving self-help educative modules with homework that is reviewed by a therapist before unlocking the next module. Topics included attention training, organisation, impulsivity, emotion regulation, and planning.	(1) Internet-based applied relaxation training: The same structure as the iCBT group with psychoeducation about ADHD and relaxation-related topics.

Study details	Population	Intervention(s)	Comparison
	Medication: 66.3% were taking ADHD medication		(2) TAU
Selaskowski 2022 2 arm RCT Germany	- Sample size: 43 - Age: Mean 38.2 (SD 11.9) years - ADHD: Fulfilled the DSM-5 ADHD diagnostic criteria as assessed with the IDA-R - Medication: The intake of medication for ADHD was permitted	AwareMe ADHS: Smartphone assisted psychoeducation, involving group sessions led by therapists that covered eight ADHD related topics, accompanied by smartphone-based modules	Brochure based psychoeducation. Following each group session material was distributed using brochures instead of using the app.
Indirect evidence – Prototypes			
Nordberg 2019 Design / development study Norway	- Sample size: 9 - Age: 18 years and over - ADHD: A diagnosis of ADHD - Medication: NR	Guided chatbot based conversational peer support: This would accompany a self-help programme to guide participants through the programme. Note that in this prototype trial, the chatbot was not functional and the author acted as the chatbot, following scripts and improvising if necessary.	N/A
Patrickson 2024 Feasibility / usability study using qualitative methods Australia	- Sample size: 9 - Age: 18 years and over - ADHD: A diagnosis of ADHD - Medication: NR	ADHD care post-diagnosis: Includes a clinician dashboard and accompanying app for people with ADHD to allow self-monitoring and provide treatment recommendations	N/A
Ravishankar 2022 Design / development study Sweden	- Sample size: 3 - Age: 18 years and over - ADHD: Two students with ADHD (no further details) and one psychiatrist - Medication: NR	AI based dialogue partner and monitoring system: Involves the collection and processing of smartphone data to provide insights, empower self-reflection and assist with ADHD related difficulties.	N/A

ADHD Attention Deficit/Hyperactivity Disorder; ASRS Adult ADHD Self-Report Scale; CBT Cognitive behavioural therapy; DSM5 Diagnostic and Statistical Manual of Mental Disorders; NR Not reported; NA Not applicable; SD standard deviation; TAU Treatment as usual

Quality of evidence

Quality scores ranged from 13 to 32 out of 39 (Table 5). While the QuADS guidance recommends against creating arbitrary cut-offs for high or low quality, we followed Gudka et al. (2025), using colour-coded scores to guide and provide clarity. Studies scoring 0-13 were classified as low quality, 14-25 medium, and 26-39 high. Overall, most studies scored well in terms of describing theoretical or conceptual underpinnings of the research, study aims, settings, and participants. However, domains 10 and 12 scored poorest, with limited justification of analytic methods and little evidence of stakeholder involvement.

Table 5: Quality ratings per study and domain

Study	Domain													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Ahlers 2022	2	3	1	3	2	0	2	1	3	1	3	0	3	24
Biederman 2019	3	3	3	2	2	3	2	3	2	1	3	0	2	29
Biederman 2020	3	2	3	2	2	3	2	3	3	2	3	0	2	30
Carvahlo 2023	2	2	2	3	1	0	2	3	3	1	2	0	1	22
Dentz 2020	3	3	3	3	2	3	3	2	3	1	3	0	3	32
Flobak 2021	3	3	3	3	2	1	3	2	1	1	2	3	2	29
Gibson 2015	1	3	3	2	2	3	3	3	1	2	2	0	3	28
Glickman 2015a	2	3	2	3	1	2	3	3	1	1	2	0	3	26
Glickman 2015b	2	3	1	2	3	2	3	3	1	1	2	3	3	29
Jang 2021	2	2	3	2	1	0	3	2	1	1	2	0	1	20
Kenter 2022	3	3	3	2	2	2	3	2	1	2	3	3	2	31
Kenter 2023	3	3	3	3	3	3	2	2	2	2	2	1	3	32
Knouse 2022	3	3	3	2	3	3	2	3	2	1	2	1	3	31
Luiu 2018	2	3	2	1	0	0	1	1	1	0	1	0	1	13
Mawjee 2012	3	3	3	3	2	2	3	3	3	1	3	1	2	32
Moell 2015	3	3	3	3	2	3	3	3	2	2	3	0	3	33
Nasri 2023	3	2	3	3	3	0	2	3	2	2	3	2	2	30
Norby 2021	3	3	3	2	2	2	2	3	3	1	2	0	2	28
Nordberg 2019	3	2	1	2	1	1	1	1	1	1	1	3	1	19
Nordby 2022	3	3	2	2	2	0	2	2	3	1	2	2	2	26
Orel 2024	2	3	1	1	1	0	1	1	1	0	1	0	1	13
Patrickson 2024	3	3	3	2	2	3	3	2	1	3	3	2	2	32
Petterson 2017	3	3	3	2	3	2	3	2	2	1	3	0	2	29
Ravinshankar 2022	3	3	2	2	0	0	0	0	0	0	0	3	0	13
Seery 2024	3	3	1	3	1	2	2	2	1	2	3	0	3	26
Selaskowski 2022	2	2	3	3	2	0	2	2	3	1	3	0	3	26
Selaskowski 2023	2	3	3	2	3	0	2	2	2	0	3	1	3	26
Shahsavari 2024	2	3	2	3	1	0	2	1	2	1	3	0	2	22
Shelton 2022	3	2	3	1	3	2	2	3	3	3	1	0	2	28
Stern 2016	3	3	2	2	2	2	3	3	3	1	2	0	1	27

1 Theoretical or conceptual underpinning to the research; 2 Statement of the research aim/s; 3 Clear description of research setting and target population; 4 The study design is appropriate to address the stated research aim/s; 5 Appropriate sampling to address the research aim/s; 6 Rationale for choice of data collection tool/s; 7 The format and content of data collection tool is appropriate to address the stated research aim/s; 8 Description of data collection procedure; 9 Recruitment data provided; 10 Justification for analytic method; 11 The method of analysis was appropriate to answer the research aim/s; 12 Evidence that the research stakeholders have been considered in research design or conduct; 13 Strengths and limitations critically discussed.

Effects of digital self-management interventions

Five main categories of digital self-management interventions were created: Psychoeducation (with or without additions) (n=13); cognitive training (n=3); self-help CBT (n=1); information giving (n=3); and attention monitoring (n=1). One psychoeducation study (Jang et al., 2021) also included a self-help CBT element, however as it was not primarily a CBT intervention it was categorised in the psychoeducation group. Three additional categories were created that included evidence that did not directly meet the inclusion criteria, but were still felt to be informative: Reminders (n=3); guided self-management (n=3); and prototypes (n=3). The various intervention categories are defined in Table 6.

The effects of the interventions on ADHD, clinical outcomes, other relevant effectiveness outcomes, and quantitative data relating to acceptability and engagement are summarised in Table 7 and 8 and discussed narratively in the following section.

Table 6. Description of the intervention categories

Category	Description
Main categories	
Psychoeducation	A therapeutic intervention that focuses on enhancing participants' education, support, and coping skills to better understand and cope with illness. It aims to provide knowledge about the illness/disorder, its causes, maintenance factors, and treatment options, and emphasises the participant's individual strengths, resources, and growth potential. Psychoeducation has been recommended as a first step in supporting adults with ADHD (Kooij et al., 2019).
Computerised cognitive training (CCT)	The goal of CCT for adults with ADHD is to remediate deficiencies in cognitive processes. It involves training specific cognitive skills (e.g., working memory, attention, executive function) or general cognitive abilities, using computerised tasks that challenge skills through repeated and graded exposure.
Cognitive Behavioural Therapy (CBT)	A goal-oriented form of psychotherapy that aims to change negative behaviours and patterns of thinking that an individual feels about themselves, abilities, and future that contribute to ADHD-related symptoms and impairments. CBT helps with the development of self-regulation skills, and helps to manage negative thoughts.
Information giving	This category describes interventions and tools that predominantly focus on giving health or self-management related information such as signposting or the provision of tools. It is the least intensive intervention type.
Attention monitoring	The monitoring of a predefined behaviour to help an individual stay on track with the desired behaviour. It involves the regular re-focusing of the individuals' attention on the desired behaviour, highlighting discrepancies between enacted and expected behaviour.
Additional categories	
Reminders	Reminder tools included both medication reminders and reminders to use other tools (e.g., psychoeducational tools). Digital reminder tools can include tracking apps with alarms and alerts, and SMS reminders.
Guided self-management	This category describes a range of tools and interventions that are not fully self-guided as they involve a healthcare professional in some way.
Prototypes	This category describes innovations that are not fully developed, but are first or preliminary versions of new digital self-management tools. They are not final products and the aim of these studies is to understand initial feasibility or acceptability.

Table 7. Effect direction table summarising direction of impacts on ADHD symptoms and clinically relevant outcomes

Study	Tool name	Design	Comparator	Quality	Sample size	Intervention duration	ADHD symptoms	Depression	Anxiety	QoL	Stress	Other
Psychoeducation												
Ahlers 2022	CANreduce	Subgroup analysis	N/A	Medium	94	6 weeks	✓	✓	✓	-	-	✓ ¹
Carvahlo 2023	FOCUS ADHD	RCT	TAU	Medium	49	3 months	↔	-	-	-	-	↔ ²
			DSM (+ discount)		49		↔	-	-	-	-	↔ ²
Jang 2021	Todaki	RCT	Active	Medium	46	4 weeks	↔	↔	↔	-	↔	-
Kenter 2023	My ADHD	RCT	Other DSM	High	120	7 weeks	✓	-	-	↔	↔	-
Knouse 2022	Inflow	Pre-post	N/A	High	240	7 weeks	✓	-	-	-	-	✓ ³
Nordby 2021	My ADHD	Pre-post	N/A	High	13	Unclear	↔	↔	↔	↔	↔	-
Orel 2024	NUMO	NRC	Low intensity usage	Low	63	3 months	✓	-	-	-	-	-
Selaskowski 2023	AwareMe ADHS**	RCT	Other DSM	High	34	3 weeks	↔	↔	↔	↔	↔	↔ ²
Cognitive training												
Dentz 2020	Cogmed	RCT	Active	High	44	5 weeks	↔	-	-	-	-	↔ ⁴
Mawjee 2015	Cogmed	RCT	WLC	High	64	5-6 weeks	↔	-	-	-	-	↔ ⁴
			DSM (short)		65		↔	-	-	-	-	↔ ⁴
Stern 2016	AttenFocus	RCT	Active	High	60	12 weeks	↔	-	-	↔	-	↔ ^{4,5}
Self-help CBT												
Petterssen 2017	In Focus	RCT	Active	High	27	10 weeks	↔	↔	↔	↔	-	↔ ⁵
			WLC		32		✓	↔	↔	↔	-	↔ ⁵
Information giving												
Glickman 2015b	Unnamed	Pre-post	N/A	Medium	15	3 weeks	✓	-	-	↔	-	✓ ⁶
		NRC	Active				↔*	-	-	✓*	-	↔ ⁶
Shahsavar 2024	My Friendly Mind	Pre-post	N/A	Medium	77	30 minutes	-	-	-	-	-	✓ ²
Attention monitoring / training												
Gibson 2015	Focus Check	RCT	WLC	High	48	4 weeks	↔	-	-	-	-	↔ ⁷

DSM digital self-management; NRC non-randomised comparative study; RCT randomised controlled trial; TAU treatment as usual; WLC Waitlist control

Effect direction: tick ✓ / green = positive impact; cross ✗ / red = negative impact; sideways arrow ↔ = no change (orange) or mixed effects (yellow). Note all mixed effects in this review were a combination of positive impacts or no change, no negative impacts were found.

Sample size: Final sample size (individuals) in intervention group – large tick ✓ > 300; medium tick ✓ 50–300; small tick ✓ < 50

Other outcomes: 1 Cannabis consumption, Severity of Dependence, Cannabis Use Disorder Identification Test; 2 User knowledge; 3 Functional impairment; 4 Working memory, Executive function and Various other neurocognitive measures 5 Occupational performance; 6 Coping; 7 Effortful control and Academic self-efficacy

*Statistical tests were not performed therefore judgements are based on visual inspection of graphical data

** AwareMe ADHS was the control group in this study

Psychoeducation (with or without additions)

Of the 13 studies that investigated psychoeducation, three did not include additional components. The remaining 10 studies included additional aspects alongside the psychoeducation, such as optional chat-based counselling, pill reminders, symptom assessment/monitoring, skill building exercises and techniques, goal setting or goal management, homework, task lists, mindfulness breaks, live events, community spaces, and SMS reminders to complete intervention content. Seven of the studies did not have a control group. Of the remaining six, four were RCTs, one was a non-randomised comparative study, and one a subgroup analysis of an RCT. Among comparator studies, one used TAU, one an active control, and five compared different digital self-management tools or versions. Eight of the 13 studies reported outcomes relating to ADHD symptoms or other clinically relevant areas (Table 7), while the remaining six studies only reported outcomes relating to acceptability and/or engagement, or qualitative data.

ADHD symptoms: Of the eight psychoeducation interventions that assessed the impact on ADHD symptoms, six showed a benefit of the intervention either over time (for single-arm studies) or compared to comparison groups (including usual care, active controls, and different types of tools or different versions of the same tool), in at least one of the reported measures or sub-scales. Two studies found no significant differences in changes in scores between groups.

Depression: Four studies assessed the impact of the interventions on depression. Ahlers et al. (2022) found that the *CANreduce* app led to improvements in depression over time. However, both Jang et al. (2021) and Selaskowski et al. (2023) found no differences between intervention and comparison groups, and Nordby et al. (2021) found no significant improvement over time.

Anxiety: The same four studies assessed the impact of the interventions on anxiety. Again, Ahlers et al. (2022) found that the *CANreduce* app led to improvements in anxiety over time, while the remaining three studies found no significant impact of the respective psychoeducation interventions.

Quality of life: Three studies assessed quality of life with all three showing mixed findings. However, all three found evidence of a beneficial effect for digital psychoeducation tools, for at least one subscale, time-point or sensitivity analysis.

Stress: Stress was assessed in four studies, three of which found no differences between groups. The fourth study found no differences between from pre- to post-intervention when considering all participants, however, when limited to completers, they found a significant improvement in stress (Nordby et al., 2021).

Other outcomes: Ahlers et al., (2022) reported three outcomes related to **cannabis intake and dependency**, all of which showed significant reductions. Knouse et al. (2022) reported **functional impairment**, and found a significant improvement in scores over time. Both Carvalho et al. (2023) and Selaskowski et al. (2023) reported **ADHD knowledge**, with neither showing significant differences between groups.

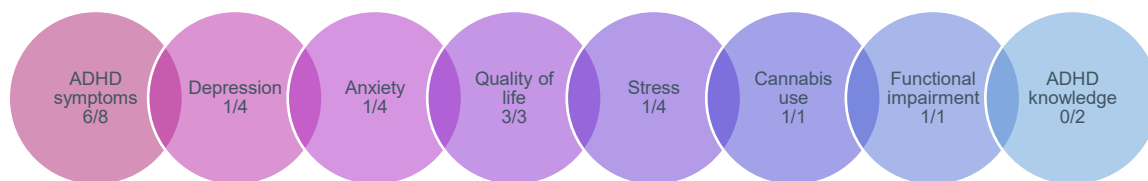


Figure 2. Proportion of studies demonstrating at least one benefit over control groups or time (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Adverse effects: Two studies reported adverse effects, with both showing relatively low overall levels. Ahlers et al. (2022) reported low overall levels of adverse effects, while Jang et al. (2021) found higher levels of some adverse effects in the intervention group, and higher levels of other effects in the control group.

Satisfaction / general acceptability: Results across three studies reporting satisfaction were mixed. Two reported good satisfaction scores for the *MyADHD* intervention with 79.1% and 80% of participants describing themselves as very satisfied or satisfied (Kenter et al. 2023; Nordby et al. 2021). Kenter et al. (2023) also found that 88.1% of participants would recommend the intervention to a friend. The *Tokadi* chatbot had lower satisfaction scores, with ratings of 2.05 on a five-point scale, which was similar to the control group rating of 2.17 (Jang et al. 2021). Shelton et al. (2022) compared preferences for tailored, minimal and full versions of the same intervention content, and found no differences in acceptability or credibility between the tailored and full versions, but better ratings for tailored when compared to the minimal version.

Usability / quality: Four studies reported outcomes relating to intervention usability and quality, of which two had average ratings, and two had good usability ratings. Carvahlo et al. (2023) found an overall app rating score of 3.45 out of 5. Across the different subscales, the combined app and discount group consistently scored higher than the group receiving just the app. Kenter et al. (2022) used the System Usability Scale, where a score below 70 indicates poor usability, and found an overall usability score of 75.5 out of 100 for the *MyADHD* app. Knouse et al. (2022) found good usability ratings for *Inflow*, with an overall score of 4.26 out of 5. Finally, Nordby et al. (2021) found average to good usability ratings, with a score of 4.2 out of 6.

Adherence: Four studies reported adherence related outcomes, with most showing poor or average levels of adherence. Ahlers et al. (2022) found low levels of module completion (average 2.1 out of 8). Carvalho et al. (2023) found that only 16.7% of participants consistently registered their medication intake on the app, and these participants were all in the combined app plus discount group. Nordby et al. (2021) found that 54% of participant completed all three modules and the average number of completed modules was 1.85 (SD 1.3).

Drop-out: Only Ahlers et al. (2022) assessed drop-out and found that approximately a third of participants dropped out after completing one module.

Other acceptability and engagement outcomes: Shelton et al. (2022) investigated the acceptability of internet-based interventions in general, as well as the specific acceptability of three versions of the same internet-based psychoeducational intervention. They found that 59% of participants indicated they would prefer an internet-based intervention over a face-to-face treatment, and that 91% of those that would prefer face-to-face treatment would still find

an internet-based intervention acceptable. Of those preferring internet-based treatments, 73% preferred the idea of guided rather than unguided treatments.

Cognitive training

Three studies investigated the effect of cognitive training. Two used the same cognitive training programme, *Cogmed*, while the third used a programme called *AttenFocus*. All three studies used RCT methodology, though the control groups differed, with two using a placebo version of the training programme, while the third compared a standard-length cognitive training intervention, a shortened version, and a waitlist control comparison.

ADHD symptoms: There were no significant differences between groups in changes in ADHD symptoms for any of the three studies.

Quality of life: One study assessed the impact of *AttenFocus* on ADHD-related quality of life and found no significant differences between groups (Stern et al., 2016).

Other outcomes: All three studies assessed multiple measures of **cognitive function**, such as working memory, executive function, cognitive failures, sustained attention, inhibition and perseverance. Two studies found significant improvements in at least one of the different outcomes measured. While Stern et al. (2016) found no differences between groups in any cognitive function related outcomes, they did find a clinically significant difference in improvement in **occupational performance**.

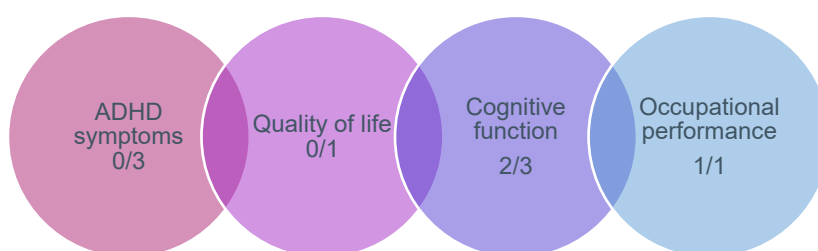


Figure 3. Proportion of studies demonstrating at least one benefit (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Acceptability: One study reported on the acceptability of *Cogmed*, with 53% of the standard-length group and 63% of the shortened version group reporting that the training experience had been either unequivocally good or mostly positive (Mawjee et al., 2015).

Drop-out: Mawjee et al. (2015) found that 12.3% of participants withdrew from the study, with less participants in the standard-length group completing the *Cogmed* training (78.1%) compared to the shortened version (93.9%) and the waitlist control group (90.6%). Stern et al., (2016) found that 76.5% of the intervention group completed the *AttenFocus* training, compared to just 50% of the control group.

Other acceptability and engagement outcomes: Only 41% of the standard-length group and 57% of the shortened group thought that the *Cogmed* training had **beneficial effects** (Mawjee et al. 2015).

Self-help CBT

Pettersson et al. (2017) assessed an internet-based self-help CBT programme, *In Focus*, using an RCT design. The programme was compared to a group who undertook a non-self-management version of the internet-based CBT programme, where participants followed the same programme but in the context of group therapy. Both groups were compared to a waitlist control comparator group.

ADHD symptoms: There was a benefit of the *In Focus* programme compared to the waitlist control group, but no difference between groups when compared to the group-based version.

Depression, anxiety, quality of life: There were no significant differences between any of the groups.

Occupational performance: There were no significant differences between any of the groups.



Figure 4. Proportion of studies demonstrating at least one benefit (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Adherence: The average number of modules completed (6.1 versus 6.9), and the proportion of participants completing all nine modules (46% and 50%) was similar between groups.

Drop-out: There were high levels of overall drop out, with a higher proportion in the self-management group (77%) compared to the group-based group (50%). More self-management group participants also dropped out before starting the programme (31%) compared to the group-based group (0%).

Information giving

Three studies investigated information-giving interventions, including two that reported on the same intervention. Glickman (2015a; b) reported a feasibility study and a non-comparative follow-up study on a website designed to provide tools, social support, and evidence-based advice for college students with ADHD. The third study used a single group with pre- and post-intervention measures to assess the *My Friendly Mind* app, which screens mental health and ADHD symptoms, provides a score and interpretation, and then delivers tailored educational content and management recommendations (Shahsavari et al., 2024).

ADHD symptoms: Glickman (2015b) found a significant improvement in scores from pre- to post-intervention which was sustained to follow-up. When comparing to a small control group, ADHD symptoms in both groups decreased however statistical testing was not performed so it is unclear whether there were between group differences.

Quality of life: Glickman (2015b) found no significant differences in quality of life ratings from pre- to post-intervention. When comparing to a small control group, there were potential differences between groups favouring the control group, but again, no statistical tests were performed.

Coping: Glickman (2015b) found a significant improvement in coping from pre-intervention to follow-up. When comparing the two groups, both groups appeared to improve.

Knowledge of ADHD and depression: Shahsavar et al. (2024) found significant increases in participants' knowledge of ADHD and depression, and increased perception of the importance of this knowledge.

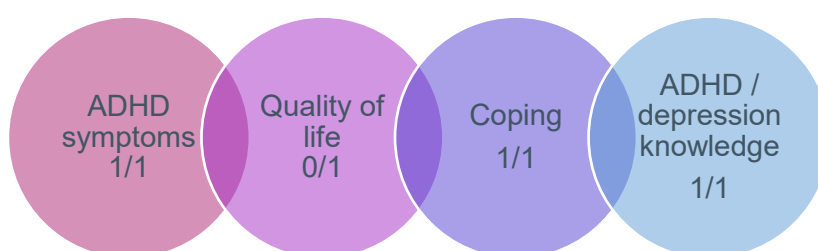


Figure 5. Proportion of studies demonstrating at least one benefit (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Attention monitoring

The *Focus Check* app allows students to self-monitor on-task attention during lectures or independent reading (Gibson, 2015) by reminding students to record on-task and off-task attention allowing for monitoring and adjustments. The app was evaluated using a mixed-methods design with a waitlist control comparison group in students who identified as having attention difficulties, with 31.3% having likely ADHD.

ADHD symptoms: There was a significant improvement in the *Focus Check* group compared to the control group on two of four subscales of ADHD symptoms, and no difference between groups for the remaining two, or in terms of mind-wandering. A sensitivity analysis of just those with likely ADHD showed similar mixed findings.

Self-efficacy, metacognitive self-regulation, and effort regulation: These were assessed using subscales of the Motivated Strategies for Learning Questionnaire. There were no significant differences in terms of change in scores over time or between groups. In the sensitivity analysis, there was a benefit in the *Focus Check* group for self-efficacy, with all other outcomes showing no significant differences.

Effortful control: There were no differences in change scores between groups for either sub-scores, either in the overall group or in the sensitivity analysis.

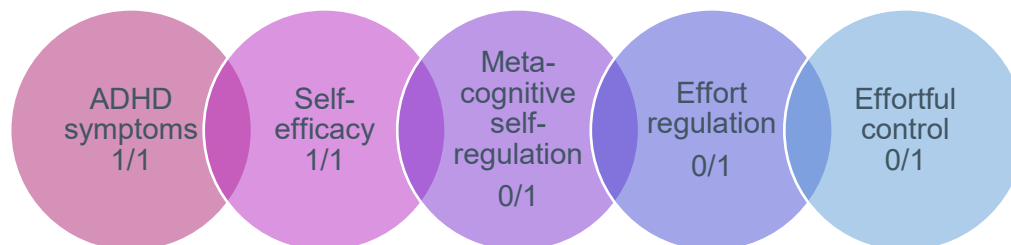


Figure 6. Proportion of studies demonstrating at least one benefit over control groups or time (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Acceptability: Acceptability for the *Focus Check* was good, with 92% of intervention participants indicating that they found the app either helpful or very helpful and 94% rating their experience of the app as somewhat to very positive.

Usability: Most participants found the app easy, comfortable and enjoyable to use.

Other acceptability and engagement outcomes: 69% of participants felt that the app had resulted in at least a 50% increase in their **ability to maintain focus**, while 14% did not feel that it had helped.

Table 8. Table summarising overall and between group performance on acceptability and engagement outcomes

Study Tool name	Design	Comparison	Quality	Sample size	Length	Adverse effects*	Acceptability Satisfaction / acceptability	Usability / quality	Engagement Adherence	Drop-out*	Other
Psychoeducation											
Ahlers 2022 CAN reduce	RCT subgroup analysis	N/A	Medium	94	6 weeks	Good	-	-	Poor	Poor / Average	-
Carvahlo 2023 FOCUS ADHD	RCT	Intervention groups only	Medium	49	3 months	-	-	Average	Poor	-	-
		App vs App + Discount		49		-	-	Better in combination group	Better in combination group	-	-
Jang 2021 Tokadi	RCT	Intervention group only	Medium	23	4 weeks	Good	Poor / Average	-	-	-	-
		Intervention vs control		46		Mixed	Similar	-	-	-	-
Kenter 2022 MyADHD	Usability	N/A	High	5	1 session	-	-	Average	-	-	-
Kenter 2023 MyADHD	RCT	Intervention group only	High	120	7 weeks	-	Good	-	-	-	Good ¹
Knouse 2022 Inflow	Pre-post	N/A	High	240	7 weeks	-	-	Good	-	-	-
Nordby 2021 MyADHD	Pre-post	N/A	High	13	Unclear	-	Good	Average / Good	Average	-	-
Shelton 2022 Unnamed	Cross-sectional	Tailored vs full	High	167	Unclear	-	No difference	-	-	-	No difference ²
		Tailored vs minimal		167		-	Better in tailored group	-	-	-	Better in tailored group ²
Cognitive training											
Mawjee 2015 Cogmed	RCT	Intervention groups only	High	65	5-6 weeks	-	Average	-	-	Good	Poor / Average ³
		Standard vs short version		65		-	Better in short version	-	-	Better in short version	Better in short version ³
Stern 2016 AttenFocus	RCT	Intervention vs control	High	60	12 weeks	-	-	-	-	Better in intervention	-
Self-help CBT											
Petterssen 2017	RCT	Overall	High	27	10 weeks	-	-	-	Poor / Average	Poor	-

Study Tool name	Design	Comparison	Quality	Sample size	Length	Adverse effects*	Acceptability Satisfaction / acceptability	Usability / quality	Engagement Adherence	Drop-out*	Other
In Focus		Self-management vs group		32		-	-	-	Similar between groups	Better in self-manageme nt	-
Attention monitoring											
Gibson 2015 Focus Check	RCT	Intervention group only	High	48	4 weeks	-	Good	Good	-	-	Average / good ⁴
Indirect evidence											
Reminders											
Nordby 2022 MyADHD	Multiple RCT design	Overall	High	109	7 weeks	-	-	-	Average	-	-
		Intervention vs control				-	-	-	No difference	-	-
Guided self-management											
Moell 2015 LivingSMART	RCT	Overall	High	57	6 weeks	-	-	-	Average	Good	-
		Intervention vs control				-	-	-	-	Better in control	-
Nasri 2023 Unnamed	RCT	Intervention groups	High	73	12 weeks	Average / good	-	-		Average	-
		iCBT vs iART				No difference	No difference	-	Similar between groups	Better in iART	Better in iCBT ²
		iCBT vs control		67		-	-	-	-	Better in control	-
Selaskowski 2022 AwareMe ADHS	RCT	Overall	High	43	8 weeks	-	-	-	-	Poor / Average	-
		Smartphone vs brochure				-	-	-	Mixed	Better in smartphone	-
Prototypes											
Nordby 2021 Terabot						-	Average / good	-	-	-	-

* For adverse effects and drop-out, a "good" rating means there were lower levels of these events

1 Percentage that would recommend the intervention to a friend; 2 Treatment credibility; 3 Percentage that believed the intervention conferred some benefit; 4 Perceived effectiveness

Note: these ratings (good/average/poor) are based on the researcher's interpretation of the data

Table 9. Effect direction table summarizing direction of impacts from studies providing indirect evidence

Study (Tool name)	Design	Comparator	Quality	Sample size	Intervention duration	ADHD symptoms	Depression	Anxiety	QoL	Stress	Disability	Functional impairment	Other
Reminders													
Biederman 2019 (Unnamed)	NRC	TAU	High	552	At least 45 days	-	-	-	-	-	-	-	✓ ₁
Biederman 2020 (Unnamed)	NRC	TAU	High	448	At least 37 days	-	-	-	-	-	-	-	✓ ₁
Guided self-management													
Moell 2015 (LivingSMART)	RCT	WLC	High	57	6 weeks	✓	✓	↔	-	↔	↔	-	✓ ₂
Nasri 2023 (Unnamed)	RCT	Other DSM	High	73	12 weeks	↔	✓	-	↔	↔	✓	-	↔ _{2,3}
		TAU		67		✓	✓	-	↔	✓	✓	-	↔ _{2,3}
Selaskowski 2022 (AwareMe ADHS)	RCT	Active	High	43	8 weeks	↔	↔	-	-	-	-	↔	↔ ₄

DSM digital self-management; NRC non-randomised comparative study; RCT randomised controlled trial; TAU treatment as usual; WLC Waitlist control
 Effect direction: tick ✓ / green = positive impact, cross ✗ / red = negative impact, sideways arrow ↔ = no change (orange) or mixed effects (yellow). Note all mixed effects in this review were a combination of positive impacts or no change, no negative impacts were found.

Sample size: Final sample size (individuals) in intervention group – large arrow ✓ > 300; medium arrow ✓ 50–300; small arrow ✓ < 50

Other outcomes: 1 Engagement in medication; 2 Clinical Global Impression Scale; 3 Emotion regulation, Work ability and Satisfaction with life, Insomnia, medication changes; 4 User knowledge

Indirect evidence

Three additional categories included evidence that did not directly meet the inclusion criteria, but were still felt to be informative:

- **Reminders:** SMS prompts for medication, prescription refill, education, or app use (n=3)
- **Guided self-management:** Digital self-management tools with some healthcare professional input (n=3)
- **Prototypes:** Early-stage innovations that are not yet functional (n=3). Prototype studies should be given less weight but highlight future possibilities.

Findings for indirect are summarised in Tables 8 and 9 and discussed narratively.

Reminders

Reminders were treated as indirect evidence because they rely on external facilitation, however they support self-management by aiding adherence and engagement in medication or other self-management tools. Two studies used non-randomised comparisons with a historical usual care cohort, while one used a multiple randomisation design, where those who had not completed their weekly psychoeducation module were randomised to either receive a reminder or not.

Medication engagement: Both medication reminder studies found a significant benefit of the intervention in terms of engagement in stimulant medication, with significantly more participants in the medication reminder intervention engaged in treatment compared to the usual care control group (Biederman et al., 2020; Biederman et al., 2019).

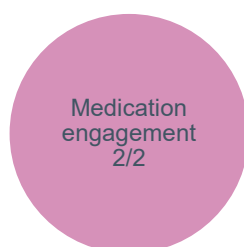


Figure 7. Proportion of studies demonstrating at least one benefit over control groups (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Intervention adherence: Nordby et al. (2022) found that SMS reminders were associated with an increased likelihood of login but only for the second module, and were not associated with module completion. Overall, 56% of participants completed at least five of the seven modules.

Guided self-management

Guided self-management interventions combine digital self-management with a substantial amount of professional input, distinguishing them from fully independent self-management approaches. They were assessed separately due to this reliance on therapist involvement, however it should be noted that there is overlap with other categories (i.e., psychoeducation and self-help CBT).

Three RCTs investigated various guided self-management approaches: Moëll et al. (2015) compared *Living SMART*, an online intervention that involved support from a coach and education regarding helpful apps, to a waitlist control group; Nasri et al. (2023) compared internet-based CBT (iCBT) with internet-based applied relaxation training (iART), and TAU, with therapist review of homework in the iCBT arm; and Selaskowski et al. (2022) compared smartphone-assisted psychoeducation (*AwareMe ADHS*) with brochure-assisted psychoeducation, both delivered through eight therapist-led group sessions followed by either an app-based module or written brochure material.

ADHD symptoms: Both studies that included a waitlist or TAU control group found a significant benefit of the interventions in terms of reductions in ADHD symptoms. There were no differences found between iCBT and iART. When comparing smartphone-assisted and brochure-assisted psychoeducation, Selaskowski et al. (2022) found significantly larger reductions in the smartphone-assisted group in three of four sub-scales.

Depression: Two of the three studies found benefits of guided digital self-management interventions compared to control groups in terms of depression. Selaskowski et al. (2022) found no differences between smartphone-assisted and brochure-assisted psychoeducation.

Stress, disability: Moëll et al. (2015) found no differences between groups in terms of stress or disability, while Nasri et al. (2023) found a significant benefit of iCBT for both outcomes, compared to both iART and the control group.

Satisfaction with life: Nasri et al. (2023) found a significant benefit of iCBT in terms of satisfaction with life scores, compared to iART and the control group.

Quality of life: There were benefits of iCBT in terms of ADHD-related quality of life, but no differences between groups for health-related quality of life (Nasri et al. 2023).

Anxiety, emotional regulation, work ability, insomnia: Moëll et al. (2015) assessed anxiety and Nasri et al. (2023) assessed emotional regulation, work ability and insomnia, with no differences between groups.

General progress: Both Moëll et al. (2015) and Nasri et al. (2023) found benefits of their guided self-management interventions on the Clinical Global Impression scale, a measure of progress over time.

Functional impairment: There were no significant differences between groups (Selaskowski et al., 2022).

Medication changes: Nasri et al. (2023) found similar proportions of participants across the three groups reporting a change in medication (either a reduction or increase).

ADHD knowledge: Selaskowski et al. (2022) found a similar proportion of correct quiz answers in the smartphone-assisted group (75.9%) and the brochure-assisted group (80.2%).

Adverse effects: Nasri et al., (2023) found that 25% of participants experience an adverse effect of some kind, and that this was evenly split across the iCBT and iART groups.

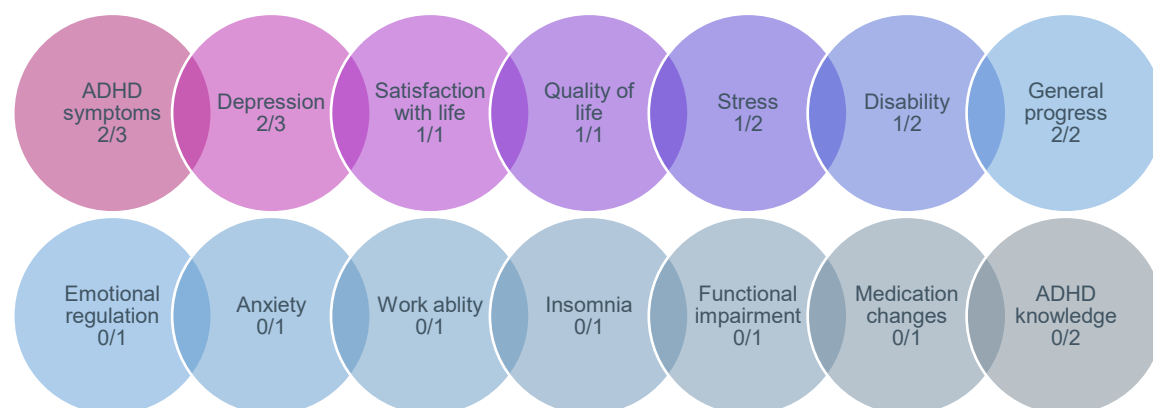


Figure 8. Proportion of studies demonstrating at least one benefit (i.e., on at least one sub-measure, time point, or analysis approach) per outcome

Satisfaction: Nasri et al. (2023) found no differences between participant satisfaction ratings between the two intervention groups.

Drop-out: All three studies reported drop-out. Levels of drop-out were higher in the guided self-management groups in two of the studies compared to control groups (Moell et al. 2015; Nasri et al. 2023), while Selaskowski et al. (2022) reported lower drop-out rates in the smartphone-assisted group compared to the brochure-assisted group, with an overall drop-out rate of 27.0%.

Adherence: Moell et al. (2015) found that participants completed an average of 3.7 out of seven modules. Nasri et al. (2023) found similar levels of module completion between intervention groups (7.3 and 6.8 out of 13).

Other acceptability and engagement outcomes: Nasri et al. (2023) assessed **treatment credibility**, and found no differences at week one, but greater credibility in the iCBT group at week five.

Prototypes

Three studies described prototypes that have been designed and tested for feasibility and/or acceptability with small numbers of participants. None of these prototype studies describe any quantitative effectiveness outcomes, and only one captured quantitative data relating to acceptability. Instead, these studies primarily captured qualitative data and so their findings are primarily reflected in the next section.

Acceptability: Nordberg et al. (2019) gave participants a user experience questionnaire. The questionnaire suggested average to good acceptability across the statements, with ratings of between four and seven out of seven.

Thematic synthesis

Thirteen studies collected and/or reported qualitative data and were included in the thematic synthesis. Four were strictly qualitative studies, while the remaining nine were mixed methods studies that included brief interviews, open ended surveys, or other forms of qualitative feedback. The synthesis included evidence from five psychoeducation interventions, three prototype interventions, two information giving interventions, one cognitive training intervention and one guided self-management intervention. The synthesis resulted in six themes, each with up to four subthemes. These are summarised in Appendix 4. Figure 9 depicts the key themes, subthemes, and some of the key study findings.

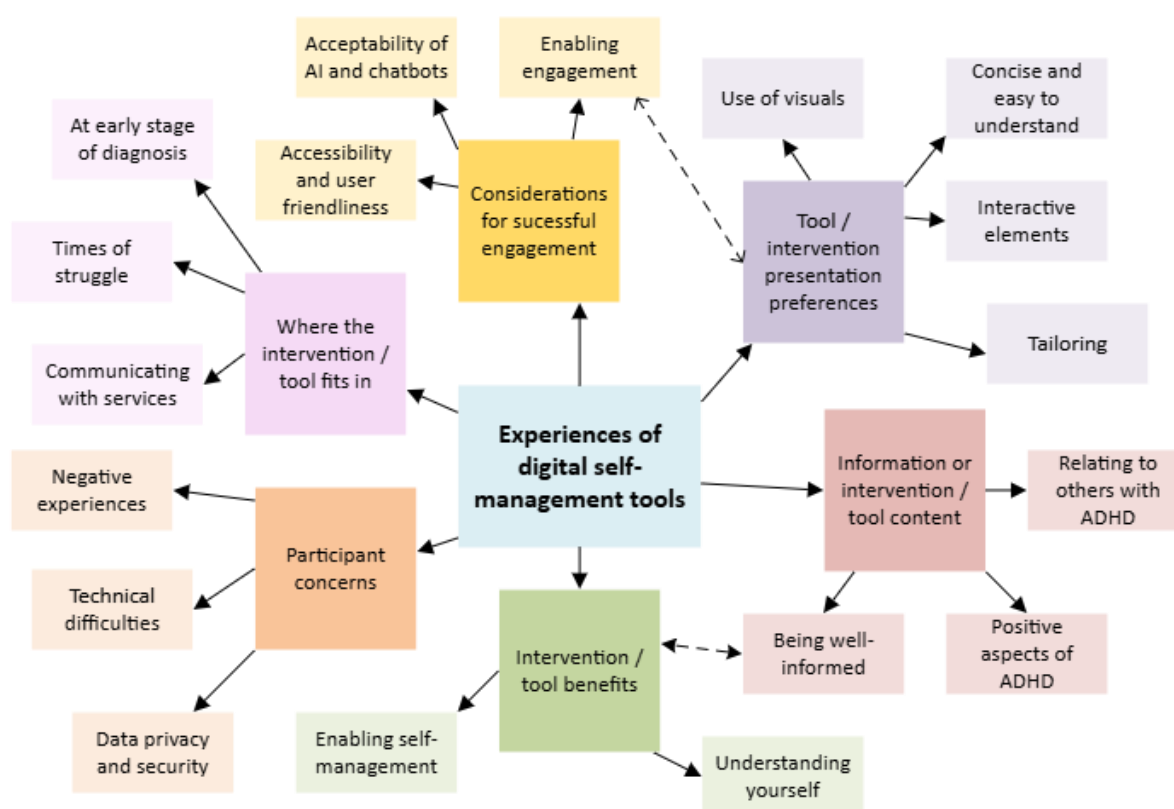


Figure 9: Overview of themes, subthemes and key findings

Theme 1: Tool presentation preferences

Use of visuals: Participants enjoyed apps and websites that had good visuals, including the use of colours, and images and videos. A common suggestion for improvement was to have more visual materials and less text, provided visuals are clear and not confusing. Some participants however found that too many colours or images was distracting.

Concise, easy to understand information: Participants preferred information that was concise and easy to understand. A common criticism of apps or websites was information that was repetitive, questionnaires or text that was too lengthy, or information that was too vague: “...having too many questions on a single page can be overwhelming and distracting, especially for someone with ADHD like me” (Patrickson et al., 2024). In line with the previous subtheme, participants often wanted less text to read and more images or videos. On the other

hand, concise yet informative information was praised: *"The videos were all very informative and none of them overstayed their welcome in terms of length."* (Shahsavari et al., 2024).

Interactive elements: Participants suggested more interactive features as a way to improve psychoeducation and information giving interventions, such as games, forums or quizzes. This is linked to the later subtheme, enabling engagement, as interactivity may improve intervention usage: *"As long as it triggers my curiosity, like true/false game for example, I will use it..."* (Lui et al., 2018). For interventions that already included interactive elements, this was often seen as a positive.

Tailoring: Participants responded positively to features that allowed tailoring or personalisation and tailoring was often suggested as an improvement for those lacking this feature. Participants wanted tools that could cope with complicated treatment regimens and nuanced life experiences. This again relates to the subtheme, enabling engagement: *"The questions should resonate with my experiences and challenges. If the tool seems generic or not applicable to my specific situation, I might lose interest."* (Patrickson et al., 2024).

Theme 2: Information or intervention content

Relating to others with ADHD: Participants appreciated psychoeducation and information giving interventions that included vignettes, videos, or stories from or about people with lived experience of ADHD. Interventions that involved vignettes benefited from being designed in partnership with people with ADHD to ensure authenticity and relatability. Participants reported benefits such as realising they are not alone, being motivated by seeing how others with ADHD cope, and learning about different types of ADHD from those who have it: *"It has actually been a huge relief to find out that there are others who have it just like you; you are not as unique as you thought!"* (Flobak et al., 2021). A lack of content on lived experience was identified as a limitation in one study.

Being well-informed: There are a lot of sources of information on ADHD, and participants felt that they did not always know which ones to trust: *"Going online... at first, it felt awesome because so much clicked, like, 'that's me!'. But the more I dug, the more overwhelmed I got. There's so much info, and it's not all clear or trustworthy"* (Patrickson et al., 2024). Many saw the apps and websites as sources of reliable, trustworthy information. Additionally, participants saw improvements in their knowledge about ADHD as a benefit of the intervention, and felt that being informed could benefit their self-management. Participants sometimes wanted more information and feedback on performance, and suggested specific topics such as emotional issues, attention, and information for their family and friends to support them better.

Positive aspects of ADHD: Interventions that used positive language to describe ADHD or that highlighted positive experiences were praised by participants, while those that used negative language like "problems" saw this as a drawback: *"I do not recognize myself in having problems, I might have challenges, not problems."* (Kenter et al., 2022).

Theme 3: Intervention benefits

Understanding yourself: Benefits of the interventions included participants having greater insight and an improved understanding of ADHD, which allowed them to understand themselves better, and in turn may lead to more self-compassion: *"So huge relief that I wasn't mad, or loser or some sort of just weirdo... It's been really, really positive"*. (Seery et al., 2025).

Enabling self-management: Many participants also reported impacts in terms of improved self-management, which came from increased motivation, learning new self-management skills and techniques such as mindfulness practice, and feeling empowered by having more information and by feeling supported: *“Getting insights on my health and comparing it with how I was doing last week can be a game changer. It’s like having a reality check. It’s not just about the data; it’s the empowerment that comes with it, making me think twice about my choices.”* (Patrickson et al., 2024). Many participants rated app features that contributed to self-management, such as alarms, tracking records, routine management and daily check-ins, positively. In studies of interventions without such features, they were often suggested as routes for improvement.

Theme 4: Participant concerns

Data privacy and security: Two of the prototype interventions involved a large amount of data collection, including sensitive data, such symptom assessments, location data and social media notifications. For both of these prototypes, some participants had concerns regarding the security of their data: *“...are any of us safe in this digital world? It feels like our security is hanging by a thread sometimes.”* (Patrickson et al., 2024). To address this, they wanted transparent and robust privacy and data security processes, and to be provided with an explanation of how their data is being used.

Technical issues: A number of psychoeducation and information giving studies reported that participants experienced technical issues or usability difficulties when interacting with the interventions. These included issues logging in, issues saving data, and confusion about how to navigate the interface. This is demonstrated by this participant quote in a “think aloud” session that noted participants thoughts while they interacted with the intervention, and demonstrates the need for easy to navigate functionality: *“Did I save this now? I am not sure, can I go back? How do I check this?”*. (Kenter et al., 2022)

Negative experiences: Some participants experienced negative effects as a result of the interventions or reported a negative experience of using them. For instance, while participants liked lived experience content in psychoeducation tools, it may be triggering for those who resonate with the difficulties described: *“I thought this video was painful to watch, I cried afterward.”* (Flobak et al., 2021). Others found the experience frustrating, not because of the intervention itself, because it reminded them that the ADHD system is frustrating to work through: *“Like because the way the system is here and the waitlists are so long and so on it just frustrates me, because of the system, not because of the app...”* (Seery et al., 2025). Some found the interventions themselves difficult or tedious. For instance, a participant who took part in a cognitive training intervention described the training as “tedious”, saying *“[the] games were fun at first but lost their novelty and became a chore.”* (Mawjee et al., 2015).

Theme 5: Considerations for successful engagement

Enabling engagement: Many participants described barriers and enablers to engaging with the interventions. For instance, some barriers to adherence with the self-help CBT programme included lack of energy or time or personal issues which made it hard to focus, while participants in the chat-based prototype study found it difficult having a set time that they needed to participate in. Those undergoing cognitive training found the five-week programme a big commitment. Some participants discussed features that might enhance engagement,

which included having reminders or push notifications: *"Reminders like that's like a massive thing like even for me."*, (Seery et al., 2025), or having structured stages that are worked through in order: *"But I think if it had been sort of like and then for less lesson plans or little stages that a little nugget opened each step at a time, so lesson one, then into lesson two. I think I would have been much more likely to go back on, because I would say 'right, I've done this section, I need to do the next one'"* (Seery et al., 2025). However, other participants did not like the idea of reminders: *"...I forget they exist. I get annoyed at the reminders because I do get pathological demand avoidance, where... as soon as it told me I have to do it, I can't."* (Patrickson et al., 2024).

Acceptability of AI and bots: The studies using AI and chatbots as part of the intervention assessed their acceptability. Participants in both chatbot based studies found the chatbots acceptable, describing them as friendly and empathetic, although several participants found the conversations unnatural. It should be noted that the chatbot used in the Nordberg (2019) prototype study was not functional and the author used scripts to play the role of the chatbot rather than an actual chatbot. On the other hand, an intervention that incorporated generated videos was described as lacking a human touch: *"Honestly the biggest suggestion is just making speakers a little bit more human like."* (Shahsavari et al., 2024), suggesting that chatbots may be more acceptable than AI generated speech.

Accessibility and user friendliness: Participants highlighted two key issues relating to accessibility. Firstly, many noted that apps, increased the accessibility of information and self-management: *"I don't like to go out unless I must, and with my family living 200 km away, I'm on my own a lot. This app can be a lifesaver, allowing me to assess myself."* (Patrickson et al., 2024). Similarly, participants of a web-based intervention suggested that there should be an app to improve access. Secondly, the accessibility of the app itself was mentioned, with participants noting that apps need to be intuitive and user friendly for a range of abilities. Apps that were user friendly were praised for this aspect.

Theme 6: Where the intervention fits in

Participants discussed when the various interventions would benefit them the most. For instance, participants testing a psychoeducation app talked about how useful it would have been to have when they were first diagnosed, as a starting point for learning more about ADHD: *"If I put myself into my shoes like when I had been diagnosed like this would have made a big difference."* (Seery et al., 2025), while others saw it as a resource to access when they are particularly struggling: *"So you'd normally go into it – well for me anyway – I'd go into it when I really like I'm really struggling with something."* (Seery et al., 2025). Others saw the interventions as a potential way to communicate with their GPs outside of appointments and to support their clinical conversations: *"It'd be even better if I could log and track my feelings, sleep, and other symptoms to see if my medication is working. And ideally, share it with my GP... I wish I could communicate with my GP in this app."* (Patrickson et al., 2024).

5. Conclusions

Summary of findings

An overview of the findings for each digital self-management category is provided in Table 10, and for each commercially available app or online intervention in Table 11. In brief, evidence for digital self-management in the adult ADHD population is mixed, with studies suggesting either benefits of digital self-management or no difference in outcomes between digital self-management groups and comparison groups. No study showed any negative effects of digital self-management on any of the key clinical outcomes, while a small number reported some minor negative effects. Therefore, overall digital self-management appears to be acceptable and potentially beneficial for adults with ADHD.

Table 10: Summary of findings for each digital self-management (DSM) type

DSM type	Summary of findings
Psychoeducation	Possible benefit for ADHD symptoms with mixed findings for depression, anxiety, function, QoL and stress. Acceptability moderate to good, usability high, few adverse effects.
Cognitive training	No effect on ADHD symptoms or QoL. Mixed results for working memory and executive function. Acceptability moderate; ~75% completion.
Self-help CBT	Better than waitlist for ADHD symptoms, but no difference vs active control. No effect on depression, anxiety, QoL, and occupational performance. High drop-out and non-completion.
Information giving	Possible benefit for ADHD symptoms and coping over time but not compared to a control group. Knowledge improved. No effect on quality of life. Acceptability positive but with potential improvement needs.
Attention monitoring	Mixed findings for ADHD symptoms, effortful control and self-efficacy. Acceptability good; high ratings for helpfulness/enjoyability.
Indirect evidence	
Reminders	High quality evidence that medication reminders improve engagement in medication. App-use reminders less effective.
Guided self-management	Some benefits for ADHD symptoms vs waitlist and TAU; mixed vs active controls. No effect on anxiety, functional impairment, emotional regulation, insomnia, medication changes, work ability or ADHD knowledge. Mixed findings for stress, depression and disability. Possible benefit for satisfaction with life and quality of life. Acceptability good; drop-out moderate-high.
Prototypes	Qualitative feedback only. Acceptability generally good but concerns and areas for improvement noted.

Table 11. Summary of findings for each named tool

Tool details	Category	Summary of findings
Adult ADHD app • 1 study • High quality	Psychoeducation	Good acceptability; suggestions for usability and engagement improvements.
AttenFocus • 1 study • High quality	Cognitive training	No effect on ADHD symptoms, executive function, or neurocognition, but a benefit for occupational performance.
AwareMe ADHS • 2 studies • High quality	Psychoeducation	Mixed findings for ADHD symptoms when compared to brochure, and better retention and module completion. No differences when compared to a chatbot version.

Tool details	Category	Summary of findings
CANreduce • 1 study • Medium quality	Psychoeducation	Benefits for ADHD symptoms, depression, anxiety, and cannabis use. Acceptability good; some issues with retention and adherence.
Cogmed • 2 studies • High quality	Cognitive training	No effect on ADHD symptoms. Mixed results for working memory and executive function. Acceptability moderate; engagement moderate to good.
FOCUS ADHD • 1 study • Medium quality	Psychoeducation	No difference between groups for ADHD symptoms. Usability moderate to good; engagement higher with app+discount.
Focus Check • 1 study • High quality	Attention monitoring	Mixed findings for ADHD symptoms with improvements in some domains. No effect on effortful control and mixed findings for self-regulated learning. Acceptability good; high enjoyment and perceived helpfulness.
In Focus • 1 study • High quality	Self-help CBT	Benefit vs waitlist for ADHD symptoms; no differences for depression, anxiety, quality of life and occupational performance. No differences vs group CBT. High drop-out; moderate engagement.
Inflow • 1 study • High quality	Psychoeducation	Significant improvements in ADHD symptoms and functional impairment over time. Usability rated highly.
Living SMART • 1 study • High quality	Guided self-management	Benefit vs waitlist for ADHD symptoms & depression. No effect on anxiety, stress, or disability. Acceptable with improvement suggestions.
My Friendly Mind • 1 study • Medium quality	Information	Improved ADHD and depression knowledge. User-friendly and informative, but areas for improvement noted.
MyADHD • 5 studies • High quality	Psychoeducation	Improvements in ADHD symptoms (especially inattention). Mixed results for other outcomes. Acceptability good; usability improved after feedback.
NUMO • 1 study • Low quality	Psychoeducation	High intensity use may reduce ADHD symptoms, but low quality evidence.
Terabot • 1 study • Medium quality	Chatbot prototype	Acceptability moderate to good. User experience varied; feedback highlighted positives and negatives. Clinical efficacy not assessed.
Tokadi • 1 study • Medium quality	Psychoeducation	Benefit for ADHD symptoms vs active control. No effect on depression, anxiety or stress. Low levels of adverse effects; average satisfaction.

Note: This table doesn't include summaries of the nine tools that are not named

Evidence gaps

The review has identified several key gaps in the evidence (Figure 10). Briefly, none of the studies provided data on health service resource use, therefore there is no evidence that that digital self-management tools for adult ADHD reduces outcomes such as appointments or staff time, and their contribution to NHS 5- and 10-year plan goals in this area remains unclear. Qualitative findings did suggest improved access to information and greater empowerment for people with lived experience of ADHD, which is part of the NHS's goals (UK Government & NHS, 2025).

Most studies focused on adults already diagnosed and medicated, leaving a gap in understanding for those awaiting or without diagnosis, where interventions might either be more impactful or less effective depending on symptom severity. Evidence supports digital self-management as an adjunct to medication, but its standalone benefits are unknown.

Finally, despite the widespread popularity of ADHD apps, there is a significant lack of research on their safety, efficacy, and effectiveness, underscoring the need for further investigation. This echoes findings of a previous review, which identified 110 ADHD-related apps, but only one academic study assessing efficacy (Păsărelu et al., 2020).

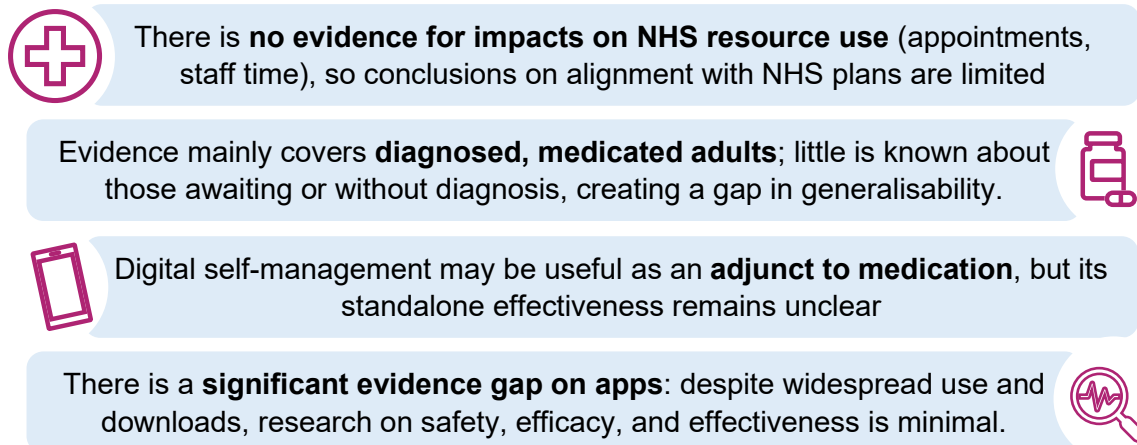


Figure 10. Summary of identified evidence gaps

Strengths and limitations

There are a number of strengths and limitations of this review, which are summarised in Figure 11. This systematic review is the first to specifically evaluate the effectiveness of digital self-management interventions for adults with ADHD, extending prior work that focused on children and young people. A key strength lies in its inclusion of both quantitative and qualitative studies, enabling assessment of measurable outcomes while also capturing the perspectives and experiences of people with lived experience of ADHD.

However, several limitations must be acknowledged. The use of rapid systematic review methodology, while allowing timely completion, involved compromises that reduce robustness. For example, grey literature was not searched, meaning evidence published outside academic channels, such as company websites, may have been missed. Future research should expand to include these sources to strengthen the evidence base.

Relatedly, there are a large number of digital self-management tools accessible online and via various “app stores” that could not be included in this review because they have no published evidence (peer reviewed or grey). Therefore while we acknowledge that these exist, we were not able to evaluate them as part of this review.

The included studies were highly diverse, with wide variation in intervention types, study designs, comparator types, and outcome measures. ADHD symptoms were assessed using nine different tools, with inconsistent reporting across studies. This variation prevented meta-analysis, limiting the power and generalisability of findings. Greater consistency in study design, comparators, and outcome measurement is needed to enable robust synthesis and clearer conclusions about which interventions are most effective.

Finally, while the QuADS quality assessment tool was chosen for its applicability across heterogeneous study types, it has limitations. Its broad scope may result in the overestimation of study quality, as it does not account for design-specific concerns or risk of bias. As a result, quality ratings may not fully reflect methodological weaknesses.

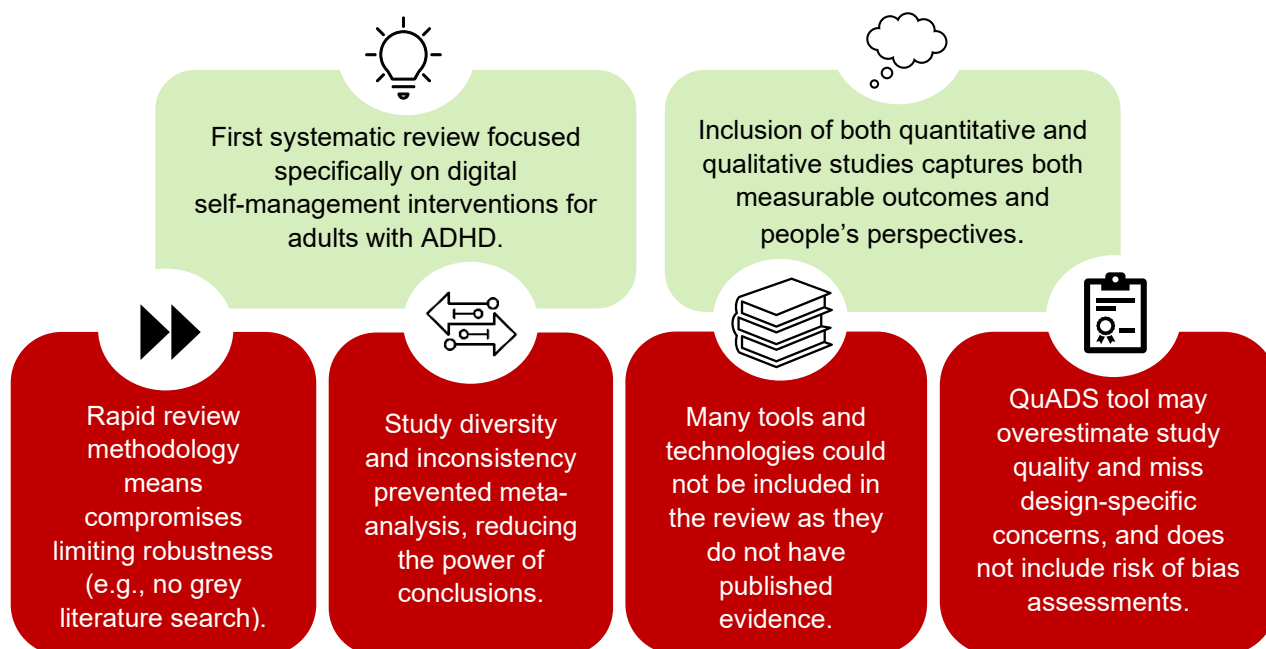


Figure 11. Overview of review strengths and limitations

Implications

There are a number of implications and recommendations for people with ADHD wanting to make use of digital self-management tools to help with the management of their condition, researchers working in this field, and for innovators looking to design a digital self-management tool for adults with ADHD.

Adults with ADHD

- The reviewed evidence supports the view that adults with ADHD may wish to consider using digital self-management tools to help manage their symptoms, as such tools (particularly psychoeducational tools) do not appear to be harmful and may improve ADHD symptoms and potentially other clinically relevant outcomes.
- Before using such tools, adults with ADHD should be aware that there is limited evidence of long-term effects, and for adults with ADHD who are not taking ADHD medication, or who are on a waiting list for assessment. Further, compliance of these tools with regulatory standards and DTAC has not been assessed as part of this review.

Clinicians and healthcare professionals

- Clinicians and healthcare professionals may wish to consider signposting adults with or are suspected of having ADHD to explore digital self-management tools as there is no evidence to date that such tools will have a negative impact on ADHD symptoms or other clinical outcomes.
- Before signposting to such tools, clinicians should be aware of the limitations outlined above.

Researchers

- Researchers should aim to address evidence gaps, including evaluating digital self-management interventions for adults awaiting ADHD assessment and/or comparing outcomes with those already diagnosed, examining impacts on health resource use and staff time, and continuing to test the efficacy and safety of commercially available digital self-management tools, including in real world settings.
- Researchers should strive to use robust methodologies and to follow reporting guidelines, to produce high quality, reliable evidence.
- Future systematic reviews on adult ADHD should include grey literature in to reduce publication bias and include all relevant evidence.

Innovators

- Innovators should include people with lived experience in the design and development of the digital self-management tool. This will increase the likelihood of the tool being relatable, relevant and engaging.
- Tools should be eye-catching, with lots of visuals such as images and videos. Information should be clear and concise, and text should be minimal.
- Innovators should consider interactivity and personalisation make tools more engaging and may make it more likely that users will continue to engage and not lose interest.
- Innovators, researchers and evaluators should work collaboratively to robustly evaluate the safety and effectiveness of the tool.

Overall conclusions

The majority of the evidence for digital self-management tools for adults with ADHD is for psychoeducational tools. There is some evidence of benefits of such tools for improving ADHD symptoms, mixed evidence for other outcomes, and we did not identify any harms. People designing digital self-management tools should do so with input from those with lived experience. There is a need for more evidence assessing the safety and effectiveness of these tools, using robust methodologies, and in real world settings. There is also a need for such digital technologies to meet regulatory, medical device, and DTAC standards, where appropriate, to ensure that they are safe, secure and accessible. The key take home messages are also summarised in Figure 12.

- 1 There is limited research on digital self-management tools for adults
- 2 Digital self-management tools may be beneficial for adults with ADHD
- 3 There is no evidence that digital self-management tools make symptoms worse
- 4 People with lived experience of ADHD should be involved in the development of self-management tools
- 5 Digital self-management tools need to be robustly tested

Figure 12. Key take home messages