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Bjornstad, G

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## SYSTEMATIC REVIEW

## Social welfare

# A comparison of the effectiveness of cognitive behavioural interventions based on delivery features for elevated symptoms of depression in adolescents: A systematic review

Gretchen Bjornstad<sup>1,2</sup>  | Shreya Sonthalia<sup>2,3</sup> | Benjamin Rouse<sup>4</sup>  |  
Leanne Freeman<sup>2</sup> | Natasha Hessami<sup>2</sup> | Jo Hickman Dunne<sup>5,6</sup> | Nick Axford<sup>7</sup>

<sup>1</sup>NIHR Applied Research Collaboration South West Peninsula (PenARC), University of Exeter Medical School, Exeter, UK

<sup>2</sup>Dartington Service Design Lab, Buckfastleigh, UK

<sup>3</sup>MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

<sup>4</sup>Center for Clinical Evidence and Guidelines, ECRI Institute, Plymouth Meeting, Pennsylvania, USA

<sup>5</sup>The Centre for Youth Impact, London, UK

<sup>6</sup>University of Manchester, Manchester, UK

<sup>7</sup>NIHR Applied Research Collaboration South West Peninsula (PenARC), University of Plymouth, Plymouth, UK

## Correspondence

Gretchen Bjornstad, NIHR Applied Research Collaboration South West Peninsula (PenARC), University of Exeter Medical School, St. Luke's Campus, South Cloisters, Room 2.05, Exeter EX1 2ER, UK.  
Email: [g.j.bjornstad@exeter.ac.uk](mailto:g.j.bjornstad@exeter.ac.uk)

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## Abstract

**Background:** Depression is a public health problem and common amongst adolescents. Cognitive behavioural therapy (CBT) is widely used to treat adolescent depression but existing research does not provide clear conclusions regarding the relative effectiveness of different delivery modalities.

**Objectives:** The primary aim is to estimate the relative efficacy of different modes of CBT delivery compared with each other and control conditions for reducing depressive symptoms in adolescents. The secondary aim is to compare the different modes of delivery with regard to intervention completion/attrition (a proxy for intervention acceptability).

**Search Methods:** The Cochrane Depression, Anxiety and Neurosis Clinical Trials Register was searched in April 2020. MEDLINE, PsycInfo, EMBASE, four other electronic databases, the CENTRAL trial registry, Google Scholar and Google were searched in November 2020, together with reference checking, citation searching and hand-searching of two databases.

**Selection Criteria:** Randomised controlled trials (RCTs) of CBT interventions (irrespective of delivery mode) to reduce symptoms of depression in young people aged 10–19 years with clinically relevant symptoms or diagnosis of depression were included.

**Data Collection and Analysis:** Screening and data extraction were completed by two authors independently, with discrepancies addressed by a third author. CBT interventions were categorised as follows: group CBT, individual CBT, remote CBT, guided self-help, and unguided self-help. Effect on depressive symptom score was estimated across validated self-report measures using Hedges' *g* standardised mean difference. Acceptability was estimated based on loss to follow-up as an odds ratio. Treatment rankings were developed using the surface under the cumulative ranking curve (SUCRA). Pairwise meta-analyses were conducted using random

The joint first authorship belong to Gretchen Bjornstad, Shreya Sonthalia, and Benjamin Rouse.

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effects models where there were two or more head-to-head trials. Network analyses were conducted using random effects models.

**Main Results:** Sixty-eight studies were included in the review. The mean age of participants ranged from 10 to 19.5 years, and on average 60% of participants were female. The majority of studies were conducted in schools (28) or universities (6); other settings included primary care, clinical settings and the home. The number of CBT sessions ranged from 1 to 16, the frequency of delivery from once every 2 weeks to twice a week and the duration of each session from 20 min to 2 h. The risk of bias was low across all domains for 23 studies, 24 studies had some concerns and the remaining 21 were assessed to be at high risk of bias. Sixty-two RCTs (representing 6435 participants) were included in the pairwise and network meta-analyses for post-intervention depressive symptom score at post-intervention. All pre-specified treatment and control categories were represented by at least one RCT. Although most CBT approaches, except remote CBT, demonstrated superiority over no intervention, no approaches performed clearly better than or equivalent to another. The highest and lowest ranking interventions were guided self-help (SUCRA 83%) and unguided self-help (SUCRA 51%), respectively (very low certainty in treatment ranking). Nineteen RCTs (3260 participants) were included in the pairwise and network meta-analyses for 6 to 12 month follow-up depressive symptom score. Neither guided self-help nor remote CBT were evaluated in the RCTs for this time point. Effects were generally attenuated for 6- to 12-month outcomes compared to posttest. No interventions demonstrated superiority to no intervention, although unguided self-help and group CBT both demonstrated superiority compared to TAU. No CBT approach demonstrated clear superiority over another. The highest and lowest ranking approaches were unguided self-help and individual CBT, respectively. Sixty-two RCTs (7347 participants) were included in the pairwise and network meta-analyses for intervention acceptability. All pre-specified treatment and control categories were represented by at least one RCT. Although point estimates tended to favour no intervention, no active treatments were clearly inferior. No CBT approach demonstrated clear superiority over another. The highest and lowest ranking active interventions were individual CBT and group CBT respectively. Pairwise meta-analytic findings were similar to those of the network meta-analysis for all analyses. There may be age-based subgroup effects on post-intervention depressive symptoms. Using the no intervention control group as the reference, the magnitudes of effects appear to be larger for the oldest age categories compared to the other subgroups for each given comparison. However, they were generally less precise and formal testing only indicated a significant difference for group CBT. Findings were robust to pre-specified sensitivity analyses separating out the type of placebo and excluding cluster-RCTs, as well as an additional analysis excluding studies where we had imputed standard deviations.

**Authors' Conclusions:** At posttreatment, all active treatments (group CBT, individual CBT, guided self-help, and unguided self-help) except for remote CBT were more effective than no treatment. Guided self-help was the most highly ranked intervention but only evaluated in trials with the oldest adolescents (16–19 years). Moreover, the studies of guided self-help vary in the type and amount of therapist support provided and longer-term results are needed to determine whether effects persist. The magnitude of effects

was generally attenuated for 6- to 12-month outcomes. Although unguided self-help was the lowest-ranked active intervention at post-intervention, it was the highest ranked at follow-up. This suggests the need for further research into whether interventions with self-directed elements enable young people to maintain effects by continuing or revisiting the intervention independently, and whether therapist support would improve long-term outcomes. There was no clear evidence that any active treatments were more acceptable to participants than any others. The relative effectiveness of intervention delivery modes must be taken into account in the context of the needs and preferences of individual young people, particularly as the differences between effect sizes were relatively small. Further research into the type and amount of therapist support that is most acceptable to young people and most cost-effective would be particularly useful.

## 1 | PLAIN LANGUAGE SUMMARY

### 1.1 | Cognitive behavioural therapy is likely to reduce depression in young people, regardless of how it's delivered

Cognitive behavioural therapy (CBT) can be delivered in various ways, all of which are likely to reduce depression in young people. Self-help with therapist support is the most highly ranked, but the differences between the different types of therapy are small. It is unclear whether therapy delivered remotely (such as online) is effective.

Six to twelve months after treatment, self-help was the highest ranked for reducing depression. However, fewer types of delivery were tested over the long term, and there is no clear evidence of a difference between them.

No types of delivery are more acceptable to young people than any others.

### 1.2 | What is this review about?

Depression is a common mental health problem in young people and is often treated with CBT. CBT is a talking therapy that aims to help people by changing negative patterns in the connections between thoughts, feelings and actions.

CBT can be delivered in different ways: face-to-face individually or in a group, via an app or website, using a book, remotely with a therapist online or on the phone or a combination of self-help and therapist support.

It is not clear which of these types of delivery are the most effective for young people.

### 1.3 | What is the aim of this review?

This Campbell systematic review aims to collect information from studies of CBT for depression in young people to find out whether some delivery

types are more effective than others for reducing depression, and whether any are more acceptable to young people.

### 1.4 | What studies are included?

After searching for studies of CBT for depression in young people, 68 studies were included in the review. All studies are randomised controlled trials.

### 1.5 | What are the main findings of this review?

Most types of CBT reduce depression in young people. Self-help with support from a therapist is the highest ranked for effectiveness, although the differences are small. We only found one study of CBT delivered remotely.

None of the delivery types are more effective than any others 6-12 months after treatment. Self-help CBT without therapist support is the highest ranking in the long term. No studies examined self-help with support from a therapist or CBT delivered remotely over the long term.

No delivery types are likely to be more acceptable to young people than any others.

### 1.6 | What do the findings of this review mean?

All types of CBT are likely to reduce depression in young people, although more research is needed for remote CBT.

Self-help with therapist support is the highest ranked, but it was only tested with young people aged 16-19 years; the results may not apply to younger age groups.

Self-help without support is the highest ranked in the longer term. Further research is needed to learn whether self-help enables young people to maintain improvement and whether therapist support would further improve long-term outcomes.

## 1.7 | How up-to-date is this review?

The review authors searched for studies up to November 2020.

## 2 | SUMMARY OF FINDINGS

Summary of findings Table 1.

## 3 | BACKGROUND

### 3.1 | Description of the condition

Depression is a public health problem and common amongst adolescents. In the UK, the rate of mental illness in young people has been rising in recent years and this is expected to continue, particularly due to the COVID-19 pandemic (The Lancet Child and Adolescent Health, 2021). The Mental Health of Children and Young People (MHCYP) Survey in England 2017 found that 2.1% of children and young people aged 5–19 have a depressive disorder, with the prevalence increasing with age to 4.8% in 17–19-year olds (NHS Digital, 2018). It is estimated that around one in ten adolescents in the US experiences at least one major depressive episode per year (CBHSQ, 2015). In Europe, the prevalence of depression in adolescents has been reported using baseline data from a randomised controlled trial, which found the prevalence ranging from 7.1% to 19.4% across 11 countries (Balázs, 2012). Research is ongoing to assess how the COVID-19 pandemic and related restrictions have affected young people's mental health, but a recent analysis indicates that the percentage of young people aged 11–16 years in England with a probable mental disorder increased from 12.6% in 2017 to 17.6% in 2020 (Vizard, 2020).

A diagnosis of major depressive disorder, according to the DSM-V criteria, is characterised by the presence of five or more symptoms, such as a persistent depressed mood, a loss of interest or pleasure in daily activities, sleep problems, change in appetite or weight, fatigue, feelings of worthlessness or guilt, diminished concentration, and suicidal thoughts, consistently for at least a 2-week period (American Psychiatric Association, 2013). Clinically significant distress or impairment in social, occupational, or other important areas of functioning must also be present.

The incidence of major depressive disorder in children and adolescents is associated with lifetime psychiatric comorbidity, risk of suicidality, functional impairments, and recurrence (Rohde, 2013). An analysis of global data found that neuropsychiatric disorders were the main cause of disease burden for young people aged 10–24 years, with most of these accounted for by unipolar depressive disorders (Gore, 2011).

In addition, a history of depressive episodes or elevated symptoms of depression are significant risk indicators of later major depressive disorder and can have a negative impact on quality of life (Bertha, 2013). An analysis from the Christchurch Health and

Development Study birth cohort in New Zealand found that subthreshold depression in young people aged 17 to 18 years was associated with later depression and suicidal tendencies up to age 25 (Fergusson, 2005). However, a prospective longitudinal cohort study in Australia found that although diagnosis of depression in adolescence predicts diagnosis in young adulthood, the rates of disorder dropped by the late 20s (Patton, 2014). Remission was most likely in cases where adolescent depression was brief in duration. López-López (2020) analysed data from the Avon Longitudinal Study of Parents and Children (ALSPAC) in the UK and were able to distinguish five different trajectories of depressive symptoms. They found that clinically relevant symptoms at any age between 11 and 24 years, regardless of trajectory, are associated with poor education and employment outcomes in early adulthood, indicating that monitoring of symptoms over the course of adolescence is needed.

The evidence for the incidence, impact, and prognosis of adolescent depression continues to indicate that it is important to identify the most effective interventions to reduce depressive symptoms and limit the duration of diagnoses to improve quality of life in adolescence and into adulthood.

### 3.2 | Description of the intervention

This review focusses on interventions that are based on cognitive behavioural therapy (CBT) and delivered through various modalities. CBT is widely used to treat depression amongst children, adolescents and adults and is one of several interventions recommended for treating depression in children and adolescents by the National Institute for Health and Care Excellence in the UK and the American Academy of Child and Adolescent Psychiatry in the US (Birmaher, 2007; NICE, 2017). CBT was also found to have the strongest evidence of clinical effectiveness in a review of digital health interventions for child and adolescent mental health, including for treatment of depression, with non-CBT digital health interventions having weaker evidence (Hollis, 2017).

CBT is a psychotherapy based on the premise that cognitions, behaviour patterns and emotions are linked, and that cognitive and behavioural techniques can produce changes in these links (Kendall, 1995). According to this model, adolescents with depressive symptomatology have negative perceptions about themselves, the world and the future, which affect their behaviours and sustain their feelings of low self-esteem and hopelessness (Dobson, 2001). For example, depressed individuals will be selective in choosing the evidence for their performance, such that only those instances that support poor performance are remembered, which leads to behaviours that contribute to the development and persistence of depression, such as reduced engagement in activities. This diminished engagement reduces the chance of positive reinforcement. A reduction in positive reinforcement for healthy behaviours may lead to depressive symptomatology, and depressed individuals often give up activities that they value. Thus, CBT aims to modify the relationship between thoughts, behaviours and emotions.

TABLE 1 Summary of findings: Post-test depression score.

Intervention	Comparator	Number of studies (patients) with direct comparison	Relative effect (SMD [95% CI])	Certainty of the evidence	Interpretation <sup>a</sup>
Group	Unguided	2 (247)	-0.20 (-0.77, 0.38)	Low Due to concerns with within-study bias <sup>b</sup> (some) and heterogeneity <sup>e</sup> (some)	1.8 fewer points (from 7 fewer to 3.5 more) on the BDI
Individual	Remote	1 (28)	0.54 (-1.28, 2.35)	Very low Due to concerns with within-study bias <sup>b</sup> (major), indirectness <sup>c</sup> (some), and imprecision <sup>d</sup> (major)	4.9 more points (from 11.6 fewer to 21.4 more) on the BDI
Group	Guided	0 (0)	0.38 (-0.56, 1.33)	Low Due to concerns with within-study bias <sup>b</sup> (some) and heterogeneity <sup>e</sup> (some)	3.5 more points (from 5.1 fewer to 12.1 more) on the BDI
Group	Individual	0 (0)	0.02 (-0.65, 0.68)	Very low Due to concerns with within-study bias <sup>b</sup> (some) and heterogeneity <sup>e</sup> (major)	0.2 more points (from 5.9 fewer to 6.2 more) on the BDI
Group	Remote	0 (0)	0.55 (-1.38, 2.48)	Very low Due to concerns with within-study bias <sup>b</sup> (some) and heterogeneity <sup>e</sup> (major)	5 more points (from 12.5 fewer to 22.5 more) on the BDI
Guided	Individual	0 (0)	-0.37 (-1.41, 0.68)	Very low Due to concerns with within-study bias <sup>b</sup> (some) and heterogeneity <sup>e</sup> (major)	3.4 fewer points (from 12.8 fewer to 6.2 more) on the BDI
Guided	Remote	0 (0)	0.17 (-1.92, 2.26)	Very low Due to concerns with within-study bias <sup>b</sup> (some), indirectness <sup>c</sup> (some), and imprecision <sup>d</sup> (major)	1.5 more points (from 17.5 fewer to 20.5 more) on the BDI
Guided	Unguided	0 (0)	-0.58 (-1.58, 0.43)	Low Due to concerns with imprecision <sup>d</sup> (major)	5.3 fewer points (from 14.4 fewer to 3.9 more) on the BDI
Individual	Unguided	0 (0)	-0.21 (-0.98, 0.56)	Very low Due to concerns with within-study bias <sup>b</sup> (some) and imprecision <sup>d</sup> (major)	1.9 fewer points (from 8.9 fewer to 5.1 more) on the BDI

(Continues)

TABLE 1 (Continued)

Intervention	Comparator	Number of studies (patients) with direct comparison	Relative effect (SMD [95% CI])	Certainty of the evidence	Interpretation <sup>a</sup>
Remote	Unguided	0 (0)	-0.75 (-2.72, 1.22)	Very low Due to concerns with within-study bias <sup>b</sup> (some) and imprecision <sup>d</sup> (major)	6.8 fewer points (from 24.7 fewer to 11.1 more) on the BDI
Ranking of treatments			Intervention (SUCRA value) Guided (83%); Remote (77%); Group: (67%); Individual (66%); Unguided (51%)	Very low Due to concerns with within-study bias <sup>f</sup> (some), heterogeneity <sup>g</sup> (some), and publication bias <sup>h</sup> (some)	

**Patient or population:** adolescents aged 10 to 19 years with elevated, clinically relevant symptoms of depression.

**Intervention:** Any cognitive behavioural therapy approach.

**Comparator:** Another cognitive behavioural therapy approach.

**Outcome:** Self-reported post-test depression score.

**Abbreviations:** BDI, Beck's Depression Inventory; CBT, cognitive behavioural therapy; CI, confidence interval; Group, group CBT; Guided, guided self-help; Individual, individual CBT; PI, prediction interval; Remote, remote CBT; SMD, standardised mean difference; SUCRA, surface under the cumulative ranking curve; Unguided, unguided self-help.

Network includes 62 randomised controlled trials (6435 participants). Although the table only presents comparisons between active treatments, comparisons with inactive controls did contribute to the analysis.

<sup>a</sup>Interpretation on BDI scale was estimated from multiplying the standardised relative effects by the median post-test standard deviation for active interventions evaluated on the BDI scale (9.1 points).  
<sup>b</sup>Studies were at unclear (some concerns) or high (major concerns) risk of bias based on weighted average percentage contribution to effect estimate.

<sup>c</sup>Studies were moderately (some concerns) or highly (major concerns) indirect based on weighted average percentage contribution to effect estimate. Studies were considered moderately indirect if they included interventions that were evaluated for only younger or older age groups (Araki, 2019; Topooco, 2017, 2019), if they evaluated incarcerated populations (Fischer, 1996; Rohde, 2004; Saranya, 2017), or if they served as the only representative for a direct comparison (Nelson, 2003).

<sup>d</sup>5% CI crossed line of no effect and extended past minimum clinically important effect threshold (-3 to 3 points on the BDI) in one (some concerns) or both (major concerns) directions. The minimum clinically important threshold was selected based on previously reported values (Hengartner, 2021).

<sup>e</sup>5% PI crossed minimum clinically important effect threshold (-3 to 3 points on the BDI) in one (some concerns) or both (major concerns) directions. Concerns with both heterogeneity and imprecision were jointly downgraded, as the two domains are interconnected (e.g., heterogeneity may be the source of imprecision).

<sup>f</sup>69% of the information is from studies at unclear risk of bias, 23% from studies at low risk of bias, and 10% from studies at high risk of bias.

<sup>g</sup>Network heterogeneity parameter ( $\tau^2 = 0.71$ ) suggests moderate heterogeneity compared to the empirical distribution for non-pharmacological interventions with mental health outcomes measured on a continuous scale (median  $\tau^2 = 0.058$ , 95% range = 0.001 to 2.58) (Rhodes, 2015).

<sup>h</sup>Publication bias suspected for comparisons with control conditions.

### 3.3 | How the intervention might work

This review is concerned with examining various delivery modalities of CBT. CBT can be delivered by a therapist, whether in groups or individually, or through self-help. Therapist support may be delivered face-to-face or remotely via video or telephone calls or text messages with a therapist. Further, CBT can be delivered through web-based programmes that may or may not include communication with a therapist (Rathbone, 2017). Virtual appointments may improve accessibility to therapy and reduce costs. The dose (number, duration and frequency of sessions) of CBT varies and the dose-response relationship is not well understood (Girlanda, 2016).

Self-help delivery is independent of professional contact and can be delivered via books, computer programmes, or other media. The content and dose are often similar between face-to-face and remote therapy, although it may be more difficult to assess the amount of self-help content received as this relies on self-report or tracking through technology and uptake and engagement are likely to vary widely (Bergin, 2020; Fleming, 2018). Therapist support can be provided alongside self-help to guide the patient through the intervention (Cuijpers, 2010). Self-help CBT can be standardised (i.e., the material is not tailored to individuals and is the same package for all) or personalised (i.e., the material is tailored to individual needs), and it may or may not be interactive.

Digital technologies provide the potential to particularly increase access to treatments for young people, although rates of uptake and the cost-effectiveness of digital health interventions remains unclear (Hollis, 2017). A recent scoping review of preventive digital mental health interventions for children and young people found that most interventions were delivered in secondary schools and that mental health risk factors were not reported, which may indicate limitations of the reach and applicability of these interventions for young people at risk (Bergin, 2020). In the current COVID-19 pandemic, the need for remote delivery of mental health interventions has greatly increased, and NHS guidance has been provided to enable practitioners to conduct assessments and therapy remotely (NHS England, 2021).

### 3.4 | Why it is important to do this review

Existing research does not provide clear conclusions regarding the relative effectiveness of the different delivery modalities of CBT for depression in children and adolescents. Amongst adults with depression, a previous network meta-analysis found no statistically significant differences between guided self-help, individual, group, and telephone delivery of CBT, and those formats were more effective than unguided self-help (Cuijpers, 2019). However, guided self-help was found to be less acceptable based on study drop-out.

A network meta-analysis of psychotherapies for depression in children and adolescents found that only interpersonal therapy

and CBT were significantly more effective than control conditions and were more effective in reducing depressive symptoms than alternative psychotherapies such as play therapies and problem-solving therapy (Zhou, 2015). However, the review included different delivery modalities of each psychotherapy in the same node and therefore could not draw conclusions about the relative effectiveness of these modalities. Similarly, a recent systematic review of psychological treatments of subthreshold depression in children and adolescents included individual, group, and guided self-help interventions, finding a small to moderate effect on reducing depressive symptoms, but did not compare the effects of different delivery modes (Cuijpers, 2021).

A systematic review looking at the effectiveness of computerised therapies for anxiety and depression in children and young people identified studies testing three programmes for depression and two programmes aimed at both anxiety and depression; these included interactive games and standardised educational programmes (Pennant, 2015). All of the programmes for depression were rated by the authors as having low therapist input. One programme for depression and anxiety in the general population was rated as having low therapist input, but the remaining two programmes were for populations at risk of anxiety and depression and involved some therapist input. The review found that computerised CBT was more effective than non-therapeutic controls, but that face-to-face therapy was more effective than computerised CBT. A limitation of the review is that it looked at computerised therapies as a whole, rather than categorising them according to whether they were solely self-help interventions or included therapist support. Similarly, a review of online and social networking interventions for depression in young people found that online interventions with a cognitive behavioural focus were promising in terms of reducing depression (Rice, 2014). This review included studies with varying levels of support, usually from moderators or tutors. It also found a lot of variation between interventions in terms of dropout rates, and it was unclear whether level of support was related to attrition.

Another review that found computerised CBT interventions to be effective in reducing depressive symptoms in children and young people up to age 25 did not differentiate between therapist-guided and unguided self-help formats of CBT interventions (Ebert, 2015). Similarly, a review of computerised CBT for anxiety and depression found that included studies varied considerably in terms of therapist support (Richardson, 2010), and a review of internet-based CBT for children and adolescents found that most interventions involved some therapist support, mainly in the form of written messages or telephone calls (Vigerland, 2016). This is potentially important because there is some evidence based on an analysis of computerised psychotherapies with adults that the effect on depressive symptoms is moderated by the level of therapist support, with larger effects associated with therapist involvement (Andersson, 2009). A survey of young people using Child and Adolescent Mental



Health Services in the UK also found that most young people would prefer to talk to a therapist, with only 9% preferring to use a computer programme on their own (Stallard, 2010).

Existing reviews are limited by the lack of primary research comparing the effectiveness of multiple modes of delivering CBT directly, with most studies comparing computerised forms of CBT (either purely self-help or self-help with therapist support) with waitlist, no treatment, or treatment as usual (TAU) controls (Calear, 2010; Fleming, 2014). While there are studies that compare the effectiveness of a particular mode of delivery of CBT to no intervention (e.g., van der Zanden, 2012) or another non-CBT control condition (e.g., Reynolds, 1986), few studies conduct a head-to-head evaluation of two different modes of delivering CBT. Existing reviews (Calear, 2010; Ebert, 2015; Fleming, 2014; Pennant, 2015; Rice, 2014) all combine self-help with therapist support and self-help without therapist report, making it impossible to determine the relative effectiveness of these two delivery modes and leaving open the question as to whether the addition of therapist support leads to greater effectiveness or patient engagement.

To address this gap, this review utilises network meta-analysis, a method that includes direct and indirect evidence of the relative effectiveness of different interventions and thus allows comparison of pairs of interventions where there are few or no studies that have tested the two interventions in a head-to-head trial. This method also allows for examination of the ranking probabilities of competing modes of delivering CBT based on their relative effectiveness for reducing depression amongst adolescents (Salanti, 2011).

## 4 | OBJECTIVES

The current review aims to estimate the relative efficacy of different modes of CBT delivery compared with each other and control conditions for reducing depressive symptoms in adolescents. It provides relative effect estimates and ranking probabilities on the effectiveness of CBT interventions to reduce depressive symptoms in adolescents based on intervention delivery mode.

### Primary Question

1. In terms of reducing depressive symptoms in adolescents with elevated symptoms of depression, how do cognitive behavioural interventions differentiated by delivery modes compare to one another and to control groups?

### Secondary Question

2. With regard to intervention completion/attrition (used as a proxy for intervention acceptability), how do cognitive behavioural interventions (for depressive symptoms in adolescents with elevated symptoms of depression) differentiated by delivery modes compare to one another and to control groups?

## 5 | METHODS

### 5.1 | Criteria for considering studies for this review

#### 5.1.1 | Types of studies

The methods for this review were published as a protocol in the Campbell Library (Bjornstad, 2020). This review looked exclusively at randomised controlled trials (RCTs) with pre and post data, including cluster RCTs (i.e., where groups of participants, such as a classroom, rather than individuals, are the unit of random allocation). Cross-over studies (i.e., where study groups receive two or more interventions in different sequences) were eligible for inclusion if they were RCTs and if they provided data at the end of the first stage. Multi-arm trials were included. Quasi-randomised trials (i.e., use of quasi-random methods of allocation such as alternation, date of birth, case record number), and controlled clinical trials were ineligible to minimise bias which could threaten the validity of the network meta-analysis. Studies were included irrespective of publication status and language.

#### 5.1.2 | Types of participants

The population of interest is adolescents with elevated, clinically relevant symptoms of depression as measured by validated self-reported measures or diagnostic instruments. Studies including adolescents who meet diagnostic criteria for major depressive disorder were included.

#### 5.1.3 | Age

All studies conducted with adolescents aged 10–19 years were included, in line with the WHO definition of adolescence. Studies that included participants who were over age 19 were included in this review only if the mean age of the sample was less than 20 years. Studies conducted with secondary, middle, or high school students were also included (where the age range may differ slightly). Studies conducted with university students were only included where the mean age of the sample was less than 20 years.

#### 5.1.4 | Specific characteristics

Studies that include participants of a specific characteristic (e.g., participants of a particular ethnicity or those in families where parents have divorced) were included unless the intervention had been designed specifically for the population or had made adaptations to the content of the intervention and a threat to the transitivity assumption was therefore present.

### 5.1.5 | Diagnosis

This review focused on adolescents with clinically relevant symptoms of depression or who meet diagnostic criteria for major depressive disorder. Symptoms of depression could have been established using diagnostic instruments or scores on self-report measures.

Table 1 lists self-reported measures that were included and their cut points. Studies with participants scoring in the clinical range of symptoms of depression based on these self-reported measures were included. The eligibility criteria were considered first, followed by the baseline scores to identify if the mean score was above the cut point. If other measures were used, they were considered for inclusion based on their validity as measures of depression in adolescents.

In cases where the information provided in the study about participant eligibility was unclear, and the author did not provide further clarification when contacted, we included studies if participants were included based on depressive symptoms and if the mean baseline scores were above the cut point for the measure used.

Studies that included adolescents who were deemed to be at risk of developing any form of depressive disorder or who had subthreshold depression were excluded. The exception to this was when the mean depression score at baseline for the intervention and comparison groups fell above the clinically relevant cut point for depressive symptoms mentioned above.

Studies with adolescents with any comorbid disorders (e.g., depression and anxiety, depression and schizophrenia) were only included if the focus of the intervention was the treatment of depression, not comorbid conditions.

Studies were also excluded if their inclusion criteria included adolescents with cognitive impairments (e.g., learning difficulties and

autism), or adolescents with chronic or acute physical health conditions, or if the reports stated that adolescents with these types of impairments or conditions were part of the study sample. The purpose of this last criterion was to limit the variation in populations within and across studies in the network, as it is an important effect modifier that has implications for the validity of the network meta-analysis.

### 5.1.6 | Types of interventions

The review included cognitive behavioural interventions that aimed to reduce symptoms of depression in adolescence, irrespective of delivery mode. For the purposes of this review, an intervention was considered a cognitive behavioural intervention if it included (1) evaluation of cognition to identify dysfunctional cognition, and (2) cognitive restructuring to adopt helpful cognition, and (3) a component focusing on behaviour: behavioural activation, problem-solving, social skills training or relaxation techniques. We recognised that variation in the third component may confound the estimated difference between treatment delivery modes, and that some interventions may have been partial CBT with more cognitive or more behavioural foci, but we were unable to identify these types of differences between the interventions from the descriptions provided in most studies (Hetrick, 2015).

If the description of the intervention in source documents was not adequate to make an assessment on inclusion based on the above criteria, the author(s) were contacted. If we did not receive further details from the author(s), we included studies that identified the intervention as CBT and excluded studies that did not identify the intervention as CBT.

**TABLE 1** Validated measures of depression.

Measure	Score range	Score cut point
Beck Depression Inventory Second Edition (BDI-II)	0–63	≥14 ( <a href="http://academicdepartments.musc.edu/family_medicine/rcmar/beck.htm">http://academicdepartments.musc.edu/family_medicine/rcmar/beck.htm</a> )
Centre for Epidemiologic Studies Depression Scale Revised (CESD-R)	0–60	≥16 ( <a href="http://cesd-r.com/cesdr/">http://cesd-r.com/cesdr/</a> )
Children's Depression Inventory (CDI)	0–54 (t-score 34–100)	≥16 (Ivarsson, 2006; Roelofs, 2010)
Children's Depression Rating Scale-Revised (CDRS-R)	17–113	≥30 (based on author correspondence)
Children's Depression Scale (CDS)		≥135 (Tisher, 1992)
Hamilton Depression Rating Scale (HDRS)	0–62	≥8 (Hamilton, 1960; Sharp, 2015) *Dependent on the version of the HDRS used in the study
Mood and Feelings Questionnaire (MFQ)	0–66	≥27 (based on author correspondence) ≥5 on the short version (SMFQ); range 0–26 (Thapar, 1998)
Reynolds Adolescent Depression Scale (RCDS)	30–120	t-score of 61 equivalent to a raw score of 76 (Reynolds, 2004)
Patient Health Questionnaire – 9 (PHQ-9)	0–27	≥5 (Kroenke, 2002)
Patient Health Questionnaire for Adolescents (PHQ-A, also called the Severity Measure for Depression)	0–27	≥5 (Johnson, 2002)

Studies evaluating interventions that did not have all three CBT components listed above, or which were not identified by the authors as CBT, were excluded.

In line with the above conceptualisation of CBT, interventions such as acceptance and commitment therapy, mindfulness-based cognitive therapy and dialectical behaviour therapy that are rooted in principles different from those of CBT and focus on helping people to accept thoughts in a non-judgemental manner were excluded (e.g., Hayes, 1999; Linehan, 2006; Segal, 2012). Studies evaluating rational emotive behaviour therapy (REBT) were included as it is based in similar principles (Ellis, 2003).

Interventions were placed according to their mode of delivery into the following five categories:

1. Therapist-delivered CBT in face-to-face individual sessions (individual CBT): CBT delivered by a therapist to individual clients in face-to-face sessions.
2. Therapist-delivered CBT in group sessions (group CBT): This is similar to the above, but sessions are conducted for a group of clients rather than an individual client.
3. Therapist-led CBT delivered remotely (remote CBT): This includes CBT that is delivered by a therapist remotely – for example, emails, video calls (e.g., Zoom) and text messaging. The delivery can be to individual clients or groups of clients.
4. Unguided self-help (unguided self-help): This involves educating the client in the principles of CBT through reading material and helping them apply it through quizzes and activities. Traditionally, this was referred to as bibliotherapy and included workbooks. CBT can now be provided through various technological platforms (such as smartphone applications or browser-based programmes), and include audio files and videos in addition to text. When delivered electronically, self-help may include additional features such as reminders and some basic guidance on how to use the materials.
5. Self-help with therapist support or guided self-help (guided self-help): This involves material to introduce and guide the client through CBT, alongside support from a therapist. For example, clients might gain an understanding of the approach to thoughts via the workbook and could be given homework and have regular feedback calls with a therapist.

Comparisons were classified as (1) no intervention, (2) TAU, and (3) placebo. To be included in the current review, studies must have done one of the following:

1. Compared two cognitive behavioural interventions delivered through different delivery modes. Studies comparing two versions of cognitive behavioural interventions that have the same delivery mode were not included in the network meta-analyses. If such a study also has another relevant intervention or control group, the two different groups with a common delivery mode were considered as one intervention for the analysis. The way in which the common effect size were determined is explained below.

2. Compared a cognitive behavioural intervention with a no intervention, placebo, services as usual control group. Comparisons in which any pharmacological treatment (e.g., antidepressants), complementary and alternative medicine (e.g., light therapy, acupuncture) or physical interventions (e.g., yoga, exercise) are explicitly provided (i.e., not as services as usual) were not considered because they are beyond the scope of this review. Waitlist controls were classified as no intervention controls. Services-as-usual were grouped together to avoid disconnecting the network. Psychological placebos may have included psychoeducation or attention placebos that were not expected to have any impact on the outcome of interest. Psychoeducation is the provision of information about a mental health condition without the provision of therapy. Attention placebo conditions provide similar time and attention from a therapist to participants without the provision of the active therapeutic intervention. Where services-as-usual or a placebo were not adequately described in source documents, the author(s) were contacted. If sufficient detail was not obtained, the study in question was excluded.

Studies where CBT was implemented in combination with another intervention were excluded unless the comparison group also received the additional intervention, meaning that the effects of the other intervention would be controlled for.

A sensitivity analysis separating therapist-led placebos, self-help placebos, and pill placebos was carried out.

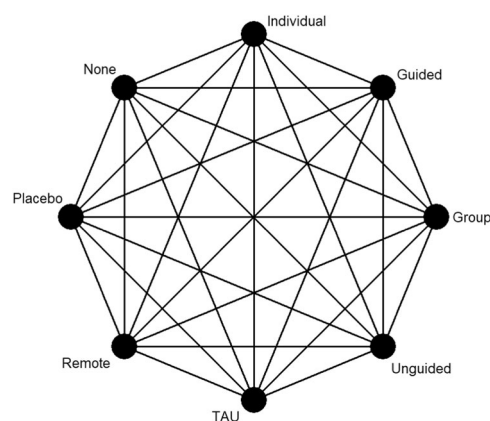
We assumed that any adolescent who met the inclusion criteria was, in principle, equally likely to be randomised to any of the eligible interventions.

Figure 1 shows all possible intervention and control comparisons.

### 5.1.7 | Types of outcome measures

#### Primary outcomes

The primary outcome for the review is depressive symptom final score at post-intervention and at 6–12 month post-intervention



**FIGURE 1** Draft network including all treatment and control nodes.

follow-up assessments. To be included in the analysis, assessment of depressive symptoms must have been self-report using a validated measure, such as most of those listed in Table 1 (the CDRS-R and the HDRS were not included as outcome measures as they are not self-report measures). Eligible outcome measures were limited to self-report for three reasons: (1) to minimise heterogeneity in outcomes measurement across trials; (2) due to the relative frequency of self-report measures used in trials of interventions for adolescent depression compared with diagnosis or other measures; and (3) the reliability of self-report measures of depression symptom severity (Merry, 2012; Mew, 2020; Stockings, 2015). Other self-report measures of depression symptoms were considered for inclusion in the analysis if used by studies and validated. In cases where there are multiple measurement points within the timeframe of 6–12 months after post-intervention assessment, we used the measurement point closest to 12 months.

Where insufficient information was provided for endpoint values, we contacted the authors for the required data. If those data could not be provided, the results are described in the narrative summary.

Only continuous measures of depression symptoms assessed using a validated assessment or diagnostic tool were considered. In cases where a study uses multiple appropriate measures for depressive symptoms, we prioritised the measure that is most used across all included studies for consistency across the network. In cases where one particular measure used in a study was not more common in the network than another, we used the measure that the authors of the study consider to be the primary measure.

### Secondary outcomes

The secondary outcome is acceptability of the intervention. This is defined as the risk of not completing the intervention. This is operationalised as loss to follow-up in the study by posttest as a dichotomous outcome (Kaltenthaler, 2008).

## 5.2 | Search methods for identification of studies

### 5.2.1 | Electronic searches

A search of the following electronic databases was conducted by the Cochrane Common Mental Disorders Group Trials Search Coordinator:

- The Cochrane Depression, Anxiety and Neurosis Group (CCDAN) Clinical Trials Register (CTR) – References Register – Inception to 8 April 2020
- MEDLINE<sup>®</sup> ALL (Ovid) – Inception to 10 November 2020
- PsycINFO (Ovid) – Inception to November week 1, 2020
- EMBASE (Ovid) – Inception to 20 November 2020
- Cumulative Index to Nursing and Allied Health Literature (CINAHL) (Ebsco) – Inception to 11 November 2020
- International Health Technology Assessment (HTA) Database – Inception to 11 November 2020

- Proquest Dissertations and Theses (Global and UK and Ireland) – Inception to 12 November 2020
- Open Grey – Inception to 19 November 2020

The following trial registry was searched:

- The Cochrane Central Register of Controlled Trials (CENTRAL) via Wiley. Searches were not conducted for [ClinicalTrials.gov](http://ClinicalTrials.gov) or the International Clinical Trials Registry Platform (WHO) because CENTRAL now contains records from these two registers.

We were not able to search the International Bibliography of Social Science (IBSS) or PsycExtra due to access limitations, and were not able to search the Educational Technology and E-Learning (EdiTLib) resource as the interface does not allow search results to be downloaded.

We searched the CCDANCTR-References Register using the following terms:

Condition:

(depression or depressive) OR depress\* or mood\*) OR (depress\* adj3 (acute or clinical\* or diagnos\* or disorder\* or elevated or major or unipolar or illness or scale\* or scor\* or schedule\* or adolesc\* or child\* or 'young adult\*' or student\* or teen\* or patient\* or participant\* or people or inpatient\* or in-patient\* or outpatient\* or out-patient\*)) OR (depress\*) and (Beck\* or BDI\* or DSM\* or 'diagnostic schedule\*' or 'diagnostic interview\*' or 'psychiatric assessment\*' or 'self report\*' or (Statistical Manual adj2 Mental Disorders) or Hamilton or HAM-D or HAMD or MADRS or (International Classification adj2 Disease\*?) or ICD-10 or ICD-9 or CESD-R or CDI or CDRS-R or CDS or HDRS or MFQ or RCDS or PHQ-9 or PHQ or PHQ-A or PHQA or K-SADS or DISC or DICA-R or CAPA)

Intervention:

((cogniti\* adj behavio\*) adj3 (counsel\* or intervention or therap\* or psychotherap\* or training or treatment or technique\* or restructur\* or defusion)) or counsel\* or CBT or CBGT\* or bCBT or b-CBT or iCBT or i-CBT or 'rational emoti\*' or (problem\* adj2 (focus\* or sol\*)) or psychoeducat\* or 'role play\*' or schema\* or 'self-control\*' or ((self\* or stress\*) adj3 (control or analysis or direct\* or esteem or help or instruct\* or manage\*)) or ((individually or group or conjoint or family) adj2 (counsel\* or intervention\* or program\* or psychotherap\* or therap\* or train\* or treat\*)) or ((attribution\* or reattribution\*) adj3 (therap\* or psychotherap\*)) or (behavio\* adj3 (activation or modification)) or (thought\* adj3 suppress\*) or rumination or psychodrama or 'role play\*' or bibliotherap\*)

Population:

(child\* or boy\* or girl\* or kids or juvenil\* or minors or paediatric\* or pediatric\* or adolesc\* or preadolesc\* or pre-adolesc\* or pubert\* or pubescen\* or prepube\* or pre-pube\* or teen\* or (young adj (adult\* or survivor\* or offender\* or minorit\*)) or youth\* or school\* or student\*)

Search strategies were tailored for each of the remaining databases (Supporting Information: Appendix 1). No restrictions on date, language or publication status were applied to the searches.

## 5.2.2 | Searching other resources

The following sources were hand-searched:

- Headspace (Australian National Youth Mental Health Foundation) Research Database – the research database for an evidence map of published systematic reviews and controlled studies on depression interventions for young people (Callahan, 2012). The database was filtered for depression, cognitive behavioural therapy and randomised controlled trials and then hand-searched.
- [www.evidencebasedpsychotherapies.org](http://www.evidencebasedpsychotherapies.org) – a database on RCTs of psychotherapies; this was filtered by depression and then hand-searched.

We searched the reference lists of the following recent reviews on psychotherapies for depression in children and young people: Callear (2010), Ebert (2015), Fleming (2014), Pennant (2015), Rice (2014), and Zhou (2015), as well as reviews retrieved in the search ( $n=37$ ) (Supporting Information: Appendix 2). Google Scholar was also searched on 30 November 2020, with appropriate search terms from the search strategy to identify newer studies that have cited these reviews. The same search strategy was used to search <https://www.learntechlib.org/> on 30 November 2020. The Google search was also conducted on 30 November 2020. 1,290,000 search results were returned by Google and the first 10 pages were copied and pasted to a Word document, from which all links to study reports were extracted and added to Covidence.

Grey literature was also sought through handsearching and review of reference lists as described above and by contacting authors of the reviews listed above.

Ongoing studies identified as likely to meet inclusion criteria based on trial registration or protocol were included in the review as 'Ongoing or Awaiting classification'. References were managed using Mendeley.

## 5.3 | Data collection and analysis

### 5.3.1 | Selection of studies

All references were screened for relevance by title and abstract by two members of the team independently, at least one of whom was an author (G. B., N. A., L. F., or S. S.). Screening and data extraction were managed and stored using Covidence.

The full text of potentially relevant articles was also screened independently by two members of the team (G. B., N. A., L. F., or S. S.) for inclusion. Discrepancies were resolved by consensus and discussion between three authors (G. B., N. A., and S. S.). Eligibility was assessed with reference to a pre-designed form based on the inclusion criteria. Studies excluded at this stage and reasons for exclusion are presented in Excluded studies. The PRISMA flow chart is presented as Figure 2.

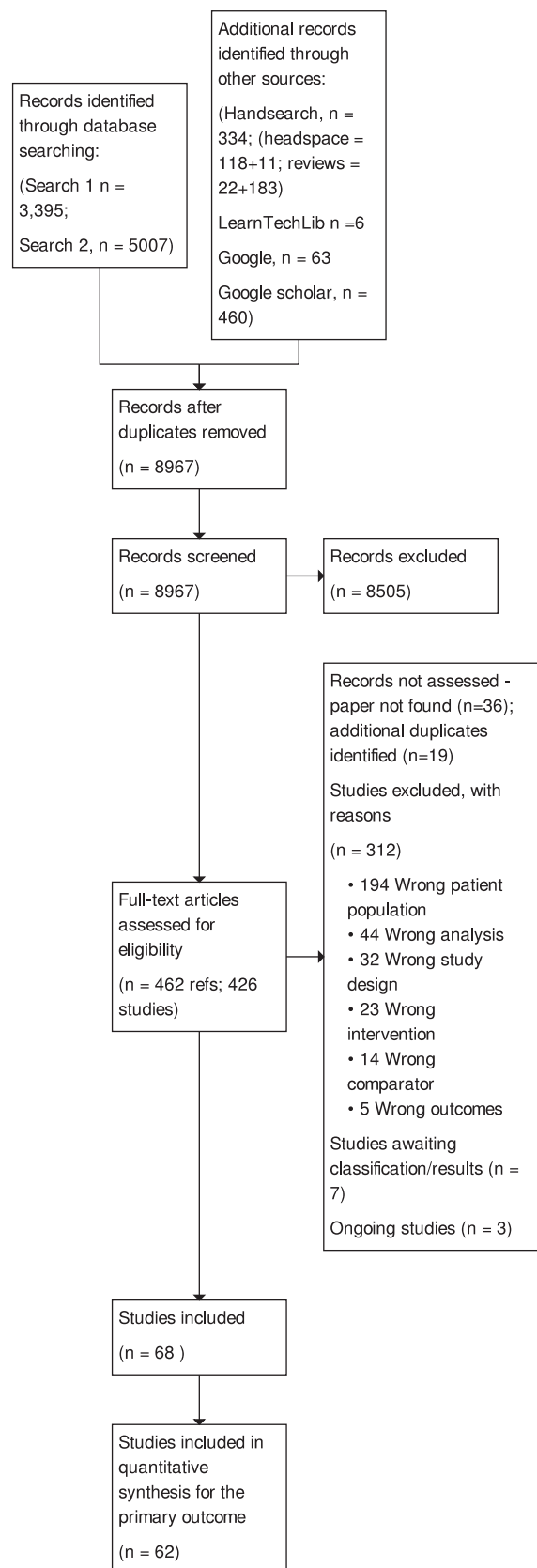


FIGURE 2 PRISMA flow chart.

The screening checklist included:

1. Does the study include a relevant intervention?
  - a. Is the intervention based on CBT?
  - b. Does the intervention target depression?
2. Is the study conducted with adolescents, or students in secondary, middle or high school, or is the mean age between 10 and 19 years?
  - a. Specify mean age
3. Is the study conducted with participants who have elevated levels of depression?
  - a. Specify screening measure and cut-off score
4. Is the study an RCT with two different nodes in the network?
  - a. Confirm if RCT
  - b. Specify all groups and potential nodes

### 5.3.2 | Description of methods used in primary research

The review is limited to randomised controlled trials. The most common type of comparison groups was no intervention. Most studies recruited and randomised individuals based on assessment of depressive symptoms. Studies randomising clusters (such as classrooms) were included.

### 5.3.3 | Criteria for determination of independent findings

Multiple publications of the same study were examined as a single study.

### 5.3.4 | Studies with two or more groups

In a multi-arm trial where more than one mode of delivering CBT is evaluated, we kept the groups separate and account for correlations due to multi-arm trials as recommended by (Salanti, 2008).

For multi-arm trials where not all arms are relevant, we did not include non-relevant arms in the analysis but will include them in the 'Table of Characteristics'.

### 5.3.5 | Data extraction and management

Data extraction was done initially in pairs by (first 7 included studies) by N. H., J. H. D. and S. S. independently to ensure consistency, then compared extracted data and S. S. provided some feedback for consistency and clarified doubts on what should be recorded. Subsequent data extraction was done by one researcher and then checked by S. S. to identify and resolve potential discrepancies, with discussion with a third author (G. B.) as required. Study coding for

network node was also conducted in pairs by S. S., N. H. and J. H. D., with discrepancies being resolved by a third author (G. B.). Inter-rater reliability for node identification was analysed using Cohen's kappa statistic based on initial assignments. In cases where one reviewer had coded a node that did not was actually not appropriate to include (e.g., the intervention was used on both adolescents and parents), the discrepancy between the reviewers was not counted as a disagreement. If one reviewer had missed a relevant node from a multi-arm study that the other reviewer assigned, it was included as a disagreement.

Data were extracted for study design, characteristics of participants and intervention using a data extraction form. Study design includes number of groups, sample size, attrition, recruitment and referral procedures, unit and method of randomisation, data collection methods and timing. Participant characteristics include age, gender, ethnicity, socioeconomic status, baseline depressive symptoms and eligibility criteria. Intervention characteristics include content, format, delivery modality (including details on provider [e.g., therapist qualifications and training, technology platform]), customisation, setting, dosage and implementation fidelity. These details were extracted for all intervention and control groups. Based on the data extraction, study arms were classified into network nodes where relevant.

### 5.3.6 | Assessment of risk of bias in included studies

Two review authors (S. S. and either N. H. or J. H. D.) independently assessed risk of bias using the Cochrane Risk of Bias Tool (Higgins, 2011), with discrepancies or uncertainty resolved by discussion with GB and NA. The following domains were assessed

- Selection bias: Bias due to inadequate randomisation method or allocation concealment method
- Performance bias: Bias due to trial participants and personnel being aware of treatment allocation
- Detection bias: Bias due to outcome assessors being aware of treatment allocation
- Attrition bias: Bias due to amount of missing data in a trial, differential missing data between trial arms, or inadequate methods of handling missing data
- Reporting bias: Bias due to selective outcome reporting
- Other sources of bias:
  - o Baseline imbalance: Bias due to imbalance in patient characteristics which are strongly related to treatment outcomes
  - o Contamination bias: Bias due to participants randomised to one group receiving the protocol of a different group of the trial
  - o Null bias: Bias due to incomplete implementation of treatment group protocol
  - o Recruitment bias (cluster trials): Bias due to individuals being recruited after clusters are randomised
  - o Incorrect analysis (cluster trials): Bias due to the analysis not taking the clustering into account

Items were rated for risk of bias as 'Low risk', 'Unclear risk', or 'High risk' following the guidance in the Cochrane Risk of Bias Tool (Higgins, 2011). Performance, detection, and attrition biases were rated for the posttest outcome of depression used in each study.

We rated the overall risk of bias for each outcome within a study using the following key domains: selection bias, detection bias, and attrition bias. The overall risk of bias was rated as 'Low risk' if all key domains are rated as 'Low risk', 'Unclear risk' if at least one key domain is rated as 'Unclear risk' and none are rated as 'High risk', and 'High risk' if at least one key domain is rated as 'High risk'. We used the overall ratings to inform our assessments of the certainty of the evidence for the quantitative findings.

### 5.3.7 | Measures of treatment effect

#### *Relative treatment effects*

We evaluated the same effect measures for both the pairwise and network meta-analyses. For depressive symptom score, a continuous outcome, individual studies used different measures, and therefore we estimated the effect using the Hedges' *g* standardised mean difference (SMD). For acceptability, a dichotomous outcome, we estimated the odds ratio (OR). We report the summary effects and 95% confidence intervals (CIs) for each pair of treatments.

#### *Relative treatment ranking*

For each outcome, we also estimated the probabilities for all treatments attaining each possible rank. This information was used to develop a hierarchy of rankings using the surface under the cumulative ranking curve (SUCRA) (Salanti, 2011). This approach to ranking accounts for the uncertainty in the treatment effects. A SUCRA value of 0% indicates the treatment is amongst the least effective of the treatments while a value of 100% indicates it is amongst the most effective.

### 5.3.8 | Unit of analysis issues

#### *Cluster-randomised trials*

We included cluster-randomised trials in the analyses along with individually randomised trials. Where necessary, we adjusted standard errors using the methods described in the Cochrane Handbook (Higgins, 2021; White, 2005) using an estimate of the intracluster correlation coefficient (ICC) derived from the trial if provided, from a similar trial, or from a study of a similar population.

We also conducted a sensitivity analysis to investigate the effects of the randomisation unit by excluding cluster-randomised trials from the analysis.

#### *Cross-over trials*

We planned to include cross-over randomised controlled trials if they provided data at the end of the first stage, but no cross-over trials met criteria for inclusion.

#### *Multi-arm trial*

As mentioned above, when there are two variations of the same mode of delivering of CBT along with a third relevant group, the two CBT groups were combined. For continuous outcomes, this was done by using the formulae provided in table 7.7a in the Cochrane Handbook (Higgins, 2021). For dichotomous outcomes, sample sizes and number of participants with outcome across the groups were summed.

#### *Dealing with missing data*

In case of missing information, the author(s) of the original study were contacted.

Results using intention-to-treat (ITT) analyses were prioritised for extraction, with preference for results based on multiple imputation.

We excluded studies from the quantitative synthesis when mean data was missing for at least one arm. When standard deviation (SD) data were missing, we imputed them based on the median SD for that outcome, measurement scale, and node. We evaluated the impact of this approach by conducting a sensitivity analysis excluding cases where we had imputed SDs.

We recorded the attrition rate and evaluated the risk of bias due to attrition bias.

### 5.3.9 | Assessment of heterogeneity

#### *Assessment of clinical and methodological heterogeneity within comparisons*

We assessed clinical and methodological heterogeneity by examining the distribution of extracted study, participant, and intervention characteristics (described above) within each direct comparison.

#### *Assessment of transitivity across treatment comparisons*

We assessed the assumption of transitivity by comparing the distribution of the potential effect modifiers across the different pairwise comparisons. We assessed whether the dose of active treatment was comparable in trials with inactive control groups and trials with active controls and examined differences between treatment nodes in terms of the age of participants and the severity of depression symptoms at baseline.

### 5.3.10 | Assessment of reporting biases

We aimed to minimise the potential impact of reporting biases by conducting a comprehensive search for eligible studies and by being alert to duplication of data. We used comparison-adjusted funnel plots to explore publication bias and the possibility of small-study effects across the network (Chaimani, 2015). In order for the results of comparison-adjusted funnel plots to be meaningful, the treatment comparisons need to be ordered consistently based on the anticipated direction of the small-study effects. Therefore, we have focused on active treatment versus inactive control comparisons.

Comparison-adjusted forest plots were generated using the `netfunnel` command in Stata 13<sup>®</sup> (Chaimani, 2015).

### 5.3.11 | Data synthesis

#### *Methods for direct treatment comparisons*

A pairwise meta-analysis was conducted for each pair of interventions (or controls) where there are two or more head-to-head trials using random effects models. Pairwise meta-analyses were performed using the `metan` command in Stata 13<sup>®</sup> (Harris, 2008).

#### *Methods for indirect and network comparisons*

Network meta-analyses were conducted using random effects models. These analyses followed the multivariate meta-regression approach accounting for correlations within multi-arm trials (Lu, 2006; White, 2011, 2012). For the purpose of the analysis, we set the most commonly used intervention (or control) amongst identified trials as the reference. We used the 'network' suite of commands in Stata 13<sup>®</sup> to conduct the network meta-analyses (White, 2015).

#### *Assessment of statistical heterogeneity*

*Assumptions when estimating the heterogeneity.* Pairwise meta-analyses were conducted assuming comparison-specific heterogeneity (i.e., each direct comparison has a separate heterogeneity estimate). For network meta-analyses we assumed a common heterogeneity across comparisons.

*Measures and tests for heterogeneity.* Statistical heterogeneity within pairwise comparisons was assessed through  $\chi^2$  tests and  $I^2$ . We considered the following thresholds when interpreting  $I^2$ : 0% to 40% might not be important; 30% to 60% may represent moderate heterogeneity; 50% to 90% may represent substantial heterogeneity; and 75% to 100% represents considerable heterogeneity (Deeks, 2011). We also considered the magnitude and the direction of the effects in our assessment of  $I^2$ . To assess heterogeneity across the entire network, we evaluated the magnitude of  $\tau^2$  and compared it to the empirical distribution (Rhodes, 2015; Turner, 2012).

#### *Assessment of statistical incoherence*

Incoherence was evaluated using a combination of local and global approaches. Where incoherence was detected, we planned to re-evaluate the set of studies indicated by the tests which may have been the source of incoherence.

*Local approaches for evaluating incoherence.* Incoherence was evaluated locally using the loop-specific approach and the node-splitting approach.

The loop-specific approach involves examining each closed loop of at least three treatments to determine the agreement between direct and indirect evidence (Higgins, 2012). The

difference between the direct and indirect estimate is represented by the incoherence factor and its 95% CI; if the 95% CI is not compatible with 0, it indicates the presence of potential incoherence. We implemented the loop-specific approach using `ifplot` in Stata 13<sup>®</sup> (Chaimani, 2015).

The node-splitting approach involves examining each pair of treatments individually to compare the direct and indirect estimates (Dias, 2010). Significant differences indicating potential incoherence are detected using a z-test. We implemented the node-splitting approach using the `network sidesplit` command in Stata 13<sup>®</sup> (White, 2015).

*Global approaches for evaluating incoherence.* Incoherence was evaluated in the entire network simultaneously using a design-by-treatment interaction model. This model adds terms to represent disagreement between direct and indirect evidence as well as differences by trial design (e.g., two-arm vs. three-arm trials) (Higgins, 2012). A Wald test is used to assess potential incoherence. Incoherence models were fitted using the 'network' suite in Stata 13<sup>®</sup> (White, 2015).

### 5.3.12 | Subgroup analysis and investigation of heterogeneity

One potential effect modifier is participant age (Curry, 2006). We conducted exploratory subgroup analyses to investigate the effect of participant age on the primary outcome of post-test depression score. Subgroups were created by splitting studies according to the mean age of participants as follows: 10–13 years; 14–15 years;  $\geq 16$  years. These subgroups were defined a priori based on a study that found differences between age subgroups in response to treatment for depression in adolescents (Curry, 2006). We examined the differences in the results of these subgroups using formal statistical testing. The between-subgroup comparisons were conducted using fixed-effects models and defining a statistically significant subgroup effect as  $p < 0.10$ .

### 5.3.13 | Sensitivity analysis

The primary analysis assumed that all placebo control conditions were similar enough to group together in the same node in the network. To evaluate the appropriateness of this assumption, we carried out a sensitivity analysis separating therapist-led placebos, self-help placebos, and pill placebos.

We also conducted a sensitivity analysis to exclude studies where we coded the intervention as interactive to examine whether interactive interventions confounded the estimated difference between delivery modes.

Finally, we conducted a sensitivity analysis to investigate the effects of the randomisation unit, as both cluster-randomised and individually randomised were included in the main analysis.



All sensitivity analyses were conducted for the primary outcome at the post-intervention time point.

We planned to conduct sensitivity analyses to test whether differences in intervention components confound the estimated differences between delivery modes, but were unable to do this as the descriptions of the interventions in most studies were not sufficient to identify these types of differences. We also planned to conduct a sensitivity analyses excluding studies where symptoms of depression were established using an unvalidated measure or unclear method, but all included studies measured depression at baseline using at least one validated measure.

### 5.3.14 | Summary of findings and assessment of the certainty of the evidence

The main Summary of findings Table 1 is based on GRADE recommendations. The table includes the comparison, number of studies and patients contributing to direct evidence, relative effect size, and quality of evidence for active treatment comparisons. Further details are summarised in narratively and in additional tables (capturing the intervention details and study details). The adaptation of GRADE to network meta-analysis was implemented using the CINeMA web application (<http://cinema.ispm.ch/>).

We also assessed the certainty of treatment rankings based on the Salanti framework (Salanti, 2014). The geometry of the network is described according to the PRISMA guidelines (Hutton, 2015). We also present the findings including effect size (against a control group), confidence intervals, and SUCRA rankings. The relative effectiveness of all interventions against each other has been summarised in a matrix. To aid in clinical interpretation, the Summary of findings Table 1 includes a column where the standardised effects are converted to BDI scores using the median post-test SD for interventions evaluated on the BDI scale.

## 6 | RESULTS

### 6.1 | Description of studies

#### 6.1.1 | Results of the search

Figure 2 shows the PRISMA diagram, created using the R package and ShinyApp for producing PRISMA 2020 compliant flow diagrams (Haddaway, 2021), and transferred manually into RevMan Web.

The number of references identified by the searches was 9265. 3395 came from the first search of databases and 5007 came from the second search. In addition, 460 studies were identified via Google Scholar, 63 via Google and 6 via the Learning and Technology Library (<https://www.learnlib.org/>). 334 studies were added through the handsearch, of which 129 came from Headspace (<https://headspace.org.au/>) and 205 were identified from relevant reviews.

Of these, 8967 remained after de-duplication. We excluded 8505 after screening titles and abstracts, retrieving 462 full-text papers which corresponded to 426 individual studies. 55 reports were not retrieved (36 papers were not found, 19 were duplicates). We excluded 312 studies with reasons outlined in the PRISMA diagram (Figure 2), and indicated 10 as ongoing studies or as awaiting classification due to lack of sufficient information to complete screening. This resulted in 85 references being included in the review for a total of 68 studies. We contacted 34 authors for further information, of whom 14 responded and 9 provided the information necessary to proceed with analysis. We could not find contact details for 5 authors. Percentage agreement for selection of studies at the abstract stage was 93.2% and at the full text stage was 86.7%.

All studies were included in at least one of the quantitative syntheses. Of the included studies, 62 were included in the data synthesis for the primary outcome of post-test depression score and 6 were not included due to having insufficient data for analysis. One study was excluded from data analysis as there was a discrepancy between the inclusion criteria reported in the text and the baseline scores reported in the table, and this could not be verified with the authors. The study was included in the review based on the reported inclusion criteria.

#### 6.1.2 | Included studies

Table 2 provides an overview of the studies included in the review.

##### *Design*

Eight included studies were cluster randomised trials (Bella-Awusah, 2016; Idsoe, 2019; Kerfoot, 2004; Kobak, 2015; Sheffield, 2006; Srivastava, 2015; Stallard, 2012; Vuthiarpa, 2012). The remaining 60 studies were parallel-group individually randomised controlled trials. There were 14 multi-arm studies, although more than two arms were included in the analysis for only seven studies (other multi-arm studies were Brent, 1997; Clarke, 1999; Hamamci, 2006; Kahn, 1988; Lewinsohn, 1990; Parks, 2013; Rossello, 1999; and Sheffield, 2006).

##### *Sample size*

The sample size ranged from 5 to 229 per node. Cluster trials had as many as 392 participants in one node.

##### *Study setting*

Studies were mostly conducted in schools (28) or universities (6). Other settings included clinical settings (9), primary care (13), community (3), home (2), education counselling centre (1) and penal settings (3). Three studies did not report the settings.

Trials were conducted across 21 different countries. The most common countries were USA (29), New Zealand (5), UK (4), Canada (3), Iran (3) and Thailand (3). Two studies each were conducted in China, India, Malaysia, Nigeria, the Netherlands, and Sweden. There were single studies from Australia, Belgium, Chile, Hong Kong, Japan,

**TABLE 2** Characteristics of included studies.

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Ackerson (1998)	None; Unguided (not inter-active)	10; 12	CDI > 10; HRSD > 10	15.9 (14–18)		USA (English)	Home	N/A; Completed during own time over 4 weeks	CDI	16.8 (4.5); 19.7 (7.1)		Published	Not reported
Alavi (2013)	TAU; Individual	15; 15	MDD/suicide attempt in last 90 days	16 (12–18)		Iran (English)	Clinical	NR; 12-weekly sessions	BDI	27.78 (4.11); 30.58 (5.35)		Published	Shiraz University of Medical Sciences (Iran)
Araki (2019)	Placebo (self-help); Guided (not inter-active)	65; 69	None	19.5 (NR)	College students	Japan (English)	College/University	1 90-min group session and 2 months no follow up; 1 90-min group session and 2 months of follow-up homework exercises	CES-D	23 (12.4); 19.7 (9.6)		Published	Not reported
Bella-Awusah (2016) <sup>a</sup>	None; Group	20; 20	BDI > 18	15.6 (14–17)		Nigeria (English)	School	N/A; 5-weekly 45- to 60-minute sessions	BDI, SMFQ	24.2, 11.8 (6.1, 2.7); 25.3, 13.4 (8.8, 4.5)		Published	John D and Catherine T MacArthur Foundation (USA)
Brent (1997)	Placebo (supported); Individual	35; 37	BDI > 13	15.6 (13–18)	MDD per DSM-III	USA (English)	Primary Care	NR; 12 to 16 approximately 1-h weekly sessions followed by 2 to 4 monthly booster session phase; 2-4 sessions	BDI	25.7 (7.8); 24.3 (8.1)		Published	National Institute of Mental Health (USA)

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Briere (2019)	Placebo (self-help); Group	37; 37	CES-D > 20	15.5 (14–18)		Canada (English)	School	NR; 6-weekly 1-h sessions	CES-D	1.66 (0.39); 1.55 (0.37)		Published	Fonds de Recherche Québécois sur la Santé et la Culture (Canada)
Charkandeh (2016)	None; Individual	60; 65	CDI $\geq$ 20; DSM-IV-TR (MDD)	NR (12–17)		Iran (English)	Primary Care	N/A; 24 twice-weekly 90-min sessions	CDI	30.35 (5.45); 29.46 (5.47)		Published	Not reported
Clarke (1995)	TAU; Group	74; 76	CES-D > 20	15.3 (NR)		USA (English)	NR	NR; 15 thrice-weekly 45-min sessions	CES-D	21.88 (9.2); 24.29 (9.6)	12	Published	National Institute of Mental Health (USA)
Clarke (1999)	None; Group	27; 37	DSM-III-R (MDD or dysthymia)	16.2 (14–18)		USA (English)	Clinical	N/A; 16 twice-weekly 2-h sessions followed by 1 to 2 booster sessions	BDI	24.2 (10.8); 26.5 (9.4)		Published	National Institute of Mental Health (USA)
Clarke (2001)	TAU; Group	49; 45	DSM-III-R (MDD or dysthymia)	14.5 (13–18)		USA (English)	Clinical	NR; 13 1-h sessions	CES-D	23.8 (10.3); 25.2 (8.7)	12	Published	National Institute of Mental Health (USA)
Clarke (2002)	TAU; Group	47; 41	DMS-III-R	15.3 (13–18)	Major depressive disorder (MDD) or dysthymia per DSM-III-R	USA (English)	Primary Care	NR; 16 twice-weekly 2-h sessions	CES-D	34.2 (9.8); 33.5 (8.3)	12	Published	National Institute of Mental Health (USA)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Clarke (2016)	TAU; Individual	106; 106	DSM-IV-TR/K-SADS (MD)	14.6 (12–18)		USA (English)	Primary Care	NR; 2, 4-session modules (unclear on time frame of delivery), followed by monthly ph1 calls (up to 6 as required)	CES-D	27.96 (7.74); 28.34 (7.58)	9	Published	National Institute of Mental Health (USA)
Congleton (1996)	None; Group	5; 10	Systematic screening for behaviour disorders – teachers nominated students with internalising behaviour; CDI used but not for screening	13.5 (12–15)		USA (English)	School	N/A; 8 roughly twice-weekly 1-h sessions over 5 weeks	CDI (pretest), YSR – Depression (posttest)	48.2 (9.07); 49.4 (10.61)		Published	Not reported – PhD
Cui (2016)	Placebo (supported); None; Group	60; 60; 60	SDS >30, <56	19.42 (18–21)		China (English)	College/University	8 weekly, 2-h sessions; N/A; 8 weekly, 2-h sessions	SDS	43.82 (19.23); 43.64 (18.62); 44.14 (19.07)		Published	National Natural Science Project (China)

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Curtis (1993)	None; Group	11; 12	BDI ≥ 16; DSM-III-R/CAS (MDD, dysthymia or adjustment disorder with depressed mood)	15.8 (NR)	Major depression, dysthymia, or adjustment disorder with depressed mood	USA (English)	School	N/A; 12 roughly twice-weekly, 2-h after school sessions over an 8 week period	BDI, RADS	24.6 (6.4), 61 (3.8); 26.6 (10.2), 56.1 (13.4)		Unpublished	Not reported - PhD
De Cuyper (2004)	None; Group	11; 9	DSM-III-R (at least one criterion of MDD); CDI (cut-off score not reported)	10 (9-11)		Belgium (English)	NR	N/A; 16 1-h-weekly sessions followed by 2 booster sessions (1 and 4 months later)	CDI	15.27 (4.54); 12.67 (6)		Published	Not reported
Dobson (2010)	Placebo (supported); Group	21; 25	CES-D ≥ 24	15.2 (13-18)		Canada (English)	School	15 sessions (length/frequency and duration unclear); 15 45-min sessions (frequency/duration unclear)	CDI, CES-D, MASQ-D	36.57 (5.34), 34.1 (11.08), 57.5 (15.09); 36.08 (5.63), 30.44 (7.02), 54.24 (14.05)		Published	Alberta Heritage Foundation for Medical Research (Canada)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Ede (2019)	None; Group	80; 82	CES-DC (moderate or severe clinical depression)	18 (16–21)		Nigeria (English)	College/University	N/A; 12-weekly 1-h sessions	CES-D	50.44 (7.68); 49.1 (6.25)		Published	Self-funded
Ettelson (2003)	None; Group	12; 13	DSM-IV	15.5 (14–18)	Major Depressive Disorder (MDD), Dysthymic Disorder (DD), or sub-clinical MDD per DSM0-IV	USA (English)	School	N/A; 16 twice-weekly 50 minute sessions over 8 weeks	CDI	63.25 (11.25); 69.31 (15.47)		Unpublished	Not reported – PhD
Fischer (1996)	Placebo (supported); Group	8; 8	BDI > 14	NR (12–17)	Detained adolescents at Detention Centre	USA (English)	Penal	5 90-min session 2x per week over 3 weeks; 5 90-min session 2x per week over 3 weeks	BDI	20.38 (8.2); 24.25 (10.34)		Unpublished	Not reported – PhD
Fleming (2012)	None; Unguided (inter-active)	11; 19	CDRS-R ≥ 30	14.9 (13–16)		New Zealand (English)	School	N/A; 7 approximately 30-min modules completed at a rate of 1–2 modules/week over 5 weeks	CDRS-D, RADS	39.5 (NR), 70.5 (NR); 39.6 (NR), 70.3 (NR)		Published	New Zealand Ministry of Health; New Zealand Tertiary Education Commission

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Gaete (2016)	None; Group	113; 229	BDI > 10 (boys), >15 girls	15.9 (14–19)		Chile (English)	School	N/A; 8-weekly 45-min sessions	RADS	21.9 (8.5); 22.53 (9.53)		Published	Wellcome Trust (UK)
Garber (2009)	TAU; Group	157; 159	CES-D $\geq$ 20 or previous episode of MDD (DSM-IV)	14.8 (13–17)		USA (English)	Clinical	NR; 8-weekly 90 min sessions followed by 6 monthly 90-min continuation sessions	BDI	15.8 (10); 15.5 (9.4)	12	Published	National Institute of Mental Health (USA)
Hamamci (2006)	None; Group	11; 10	BDI $\geq$ 19; DAS (above average); ATQ (above average)	19.52 (NR)		Turkey (English)	College/University	N/A; 12-weekly 90-min sessions	CES-D	29.87 (8.5); 27.1 (7.32)		Published	Not reported
Idsoe (2019) <sup>a</sup>	TAU; Group	95; 133	BDI > 10	16.8 (15–18)		Norway (English)	Community	NR; 8-weekly 2-h sessions, or twice-weekly sessions over a shorted period, followed by 2 90-min	BDI	30.28 (10.67); 32.77 (8.8)	12	Published	The Research Council of Norway; Gidske og Peter Jacob Sørensen fond; Norwegian Directorate of Health
Ip (2016)	Placebo (self-help); Unguided (inter-active)	127; 130	CESD-R > 12, < 40	14.6 (13–17)		Hong Kong (English)	School	NR; 10 modules, completed over 8 months at own pace	CES-D	20.43 (9.43); 20.66 (9.32)		Published	Lotteries Fund for Pilot Cyber Youth Outreaching Project (Hong Kong)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Kaessonsamut (2012)	None; Group	30; 30	CES-D >16, <29	16.9 (16–18)		Thailand (English)	School	N/A; 12-weekly 1-h sessions	CES-D	20.6 (3.44); 19.23 (2.78)		Published	Thailand Nursing and Midwifery Council
Kahn (1988)	None; Group	17; 17	RADS-I > 72; CDI	13.5 (10–14)		USA (English)	Clinical	N/A; 12 50-min sessions over 6 to 8 weeks	CES-D, RADS	28.46 (13.23); 86.91 (11.71); 26.53 (11.05); 85.41 (11.48)		Unpublished	University of Utah (USA)
Kennard (2006)	Placebo (pill); Individual	112; 111	CDRS-R > 45	14.6 (12–17)	Major depressive disorder (MDD) per DSM-IV	USA (English)	Primary Care	Medication; 14 twice-weekly 1-h sessions	CDI	81.26 (9.22); 78.69 (10.59)		Published	National Institute of Mental Health (USA)
Kerfoot (2004) <sup>a</sup>	TAU; Individual	23; 29	MFQ > 23	13.7 (NR)		UK (English)	Primary Care	NR; 8-weekly sessions	RADS	34.2 (8.3); 33.7 (8)		Published	National Health Service Executive (North West) (UK)
Kobak (2015) <sup>a</sup>	TAU; Individual	37; 39	QIDS-A-SR > 11	15.4 (12–17)	Mood disorder per DSM-V	USA (English)	School	NR; 12 weeks of treatment (frequency and length of sessions not stated) plus individualized text messages	RADS	NR (NR); NR (NR)		Published	National Institute of Mental Health (USA)
Lamb (1998)	None; Group	19; 27	RADS > 66	15.8 (14–19)		USA (English)	Community	N/A; 8 week long programme (frequency/length unclear)	MFQ	NR (NR); NR (NR)		Published	National Center for Nursing Research (USA)

(Continues)



TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Lewinsohn (1990)	None; Group	19; 21	DSM-III (MDD)/RDC (current episode of depressive disorder)	16 (14–18)	Major depression per DSM-III, current episode of minor depression per RDC	USA (English)	School	N/A; 14 twice-weekly 2-h sessions	BDI, CES-D	23.84 (11.43), 14.89 (4.3); 21.67 (11.34), 13.29 (5.21)	12	Published	National Institute of Mental Health (USA)
Listig-Lunde (2004)	TAU; Group	8; 9	CDI > 15	12.4 (NR)		USA (English)	Home	NR; 13 twice-weekly 35- to 40-min sessions for 7 weeks followed by 2 booster sessions within 1 month after treatment	CDI, CES-D	20.38 (4.1), 25.26 (11.72); 21 (4.95), 22.25 (8.51)		Unpublished	Not reported – PhD
Makarushka (2012)	Placebo (self-help); Unguided (inter-active)	85; 76	CES-D > 13	12.7 (NR)		USA (English)	School	N/A; Completed during own time over 6 weeks at about 1 module per week	CES-D	27.19 (9.12); 26.91 (8.74)		Unpublished	National Institute of Mental Health (USA)
Marcotte (1993)	None; Group	13; 12	BDI > 15; HDRS > 10	15 (14–17)		Canada (French)	School	N/A; 12 twice-weekly 45- to 60-min sessions	BDI	21.385 (6.33); 24 (8.2)		Published	Not reported
McLaughlin (2011)	TAU; Group	11; 11	BYI-II/CES-D (exhibited signs of depression)	11.82 (10–15)		USA (English)	Primary Care	NR; 10-weekly 50-min sessions	BDI, CES-D	49.73 (8.64), 18.64 (8.08); 57.18 (9.8), 20.18 (9.38)		Unpublished	Not reported – PhD

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Merry (2012)	TAU; Unguided (inter-active)	93; 94	PHQ-9/self-assessed (mild to moderate depressive disorder)	15.6 (12-19)		New Zealand (English)	Primary Care	NR; 7 modules completed during own time over 4-weeks to 7-weeks	RADS	75.52 (14.42); 74.83 (13.35)		Published	New Zealand Ministry of Health
Molden-hauer (2004)	Placebo (supported); Individual	11; 15	CDI >15, <26	14.6 (12-17)		USA (English)	Primary Care	NR; 6 1-h-weekly sessions plus 6-weekly 45-min individual parent sessions	CDI	15.45 (7.03); 19.8 (9.47)		Unpublished	National Research Science Award; Sigma Theta Tau International; KM Donahue (USA)
Nelson (2003)	Remote; Individual	19; 19	DSM-IV (MDD)	10.3 (8-14)	Depression diagnosis per DSM-IV	USA (English)	Primary Care	6 1-h-weekly sessions plus 6-weekly 45-min individual parent sessions; 1 90-min session followed by 7-weekly 60-min sessions between the parent and the child	CDI	13.57 (9.85); 14.36 (8.75)		Published	Not reported - PhD
Parks (2013)	None; Unguided (not interactive)	18; 20	None	NR (NR); college freshmen	College freshmen	USA (English)	College/University	N/A; Over a period of 8 weeks	CES-D	18.8 (n/a); 19.5 (n/a)		Published	Not reported

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Phillips (2005)	None; Group	31; 33	BDI > 10	17.7 (15–20)		USA (English)	School	N/A; 6 1-h-weekly sessions	BDI	18.65 (0; 16.48 (0		Unpublished	Not reported – PhD
Rajabi (2018)	Placebo (supported); Group	10; 10	CDI > 22	NR (13–15)		Iran (Persian)	Education Counseling Centre	12 twice-weekly 90-min sessions; N/A	CDI	32.8 (NR); 29.2 (NR)		Published	Not reported
Reynolds (1986)	None; Group	10; 9	BDI > 12; RADS-I > 72; BID > 20	15.65 (NR)		USA (English)	School	10-weekly 50-min sessions; 16 twice-weekly 2-h sessions	BDI, RADS	16.9 (5.48), 80.7 (3.58); 21.11 (7.75), 85.67 (8.4)		Published	Wisconsin Alumni Research Foundation (USA)
Rohde (2006)	Placebo (supported); Group	48; 45	KSADS (MDD)	15.2 (13–17)	Juvenile Justice Referral; had conduct disorder	USA (English)	Penal	16 twice-weekly 2-h sessions followed by 2 optional sessions for parents; 6-weekly 1-h sessions with individual catch-ups when sessions were missed	BDI	15.4 (10.6); 16.6 (12.8)	12	Published	National Institute of Mental Health (USA)
Rohde (2014a)	TAU; Unguided (not inter-active); Group	33; 22; 27	CES-D (endorse two or more items)	19 (17–22)		USA (English)	School	6-weekly 1-h sessions with individual catch-ups when sessions were missed; NR; Completed during own time over 6 weeks	K-SADS	1.43 (0.35); 1.51 (0.41); 1.52 (0.39)	12	Published	National Institute of Health (USA)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Rohde (2014b)	TAU; Unguided (not inter-active); Group	124; 128; 126	CES-D (en-dorsed two or more items)	15.5 (13–19)		USA (English)	College/Uni-versity	NR; Completed during own time over 6 weeks; 6-weekly 1-h sessions with 10- to 15-minute individual catch-ups when sessions were missed	K-SADS	1.38 (0.36); 1.45 (0.41); 1.37 (0.35)	12	Published	National Institute of Health (USA)
Rossello (1999)	None; Individual	23; 25	DSM-IV (MDD or dys-thymia)	14.7 (13–17)	Major depressive disorder (MDD) or dysthe-mia per DSM-III-R	Puerto Rico (English)	Clinical	N/A; 12 1-h-weekly sessions	CDI	20.13 (5.99); 20.12 (6.95)		Published	National Institute of Mental Health; University of Puerto Rico (USA)
Sanchez-Hernandez (2016)	None; Group	12; 13	CES-D (child) > 15	11.1 (10–12)		Spain (English)	NR	N/A; 12 twice-weekly 2-h sessions	CES-D	19.52 (8.03); 22.38 (6.54)		Published	University of Murcia (Spain)
Saranya (2017)	TAU; Guided (inter-active)	42; 42	PHQ-9 >9, <19	17.7 (16–19)	Incarcerated	Thailand (English)	Penal Setting/Vocational Training	NR; 6-weekly 45- to 60-min sessions	PHQ-9	11.52 (2.73); 11.88 (2.86)		Published	Department of the Ministry of Justice (Thailand)

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Saw (2019)	None; Group	10; 10	RADS-II > 76	16 (16)		Malaysia (English)	School	N/A; 8-weekly 90-min sessions	RADS	79.1 (3.67); 80.2 (4.83)		Published	Deanship of Scientific Research, King Fahh University; Global Asia 21st Century (Malaysia)
Saw (2020)	None; Group	43; 42	RADS-II > 76	16 (16)		Malaysia (English)	School	N/A; 8-weekly 1-h sessions	RADS	84.37 (4.68); 83.88 (4.6)		Published	Universiti Teknologi MARA; Ministry of Higher Education (Malaysia)
Sheffield (2006) <sup>a</sup>	None; Group	149; 134	CDI + CES-D score top 20%	14.34 (14–15)		Australia (English)	School	N/A; 8-weekly 90-min sessions	CDI, CES-D	23.3 (7.82), 30.24 (9.13); 21.3 (7), 27.55 (9.07)	12	Published	Not reported
Singhal (2018) <sup>a</sup>	Placebo (supported); Group	55; 65	CDI >14, <24	NR (13–18)		India (English)	School	45-min sessions (number/duration unclear); 8-weekly sessions (time not specified, but control was 45 min)	CDI, CES-D	21.8 (3.5), 29.5 (5.3); 22 (4.3), 29.4 (6.4)		Published	National Institute of Mental Health and Neuro Sciences (India)
Srivastava (2015)	TAU; Unguided (inter-active)	10; 11	ICD-10 (mild/moderate unipolar depression)	16.5 (15–19)		India (English)	Primary Care	NR; 12-weekly sessions	BDI	24.3 (3.8); 26.4 (3.4)		Published	Indian Council of Medical Research

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Stallard (2012) <sup>a</sup>	Placebo (supported); None; Group	374; 298; 392	SMFQ > 15	14.1 (12–16)		UK (English)	School	9 weekly or fortnightly 50- to 60-min sessions; N/A; 9 modules plus 2 booster sessions weekly or fortnightly 50- to 60-min sessions	SMFQ	10.6 (4.67); 10.56 (4.93); 10.64 (4.91)	6	Published	National Institute for Health Research (UK)
Stasiak (2014)	Placebo (self-help); Unguided (inter-active)	17; 17	CDRS-R ≥ 30/ RADS-II ≥ 76	15.2 (13–18)		New Zealand (English)	School	7 25- to 30-min modules over 4 to 10 weeks completed in own time; 7 25- to 30-min modules over 4 to 10 weeks completed in own time	RADS	66.12 (13.38); 77.47 (12.64)		Published	Not reported
Stice (2007)	Placebo (supported); Placebo (self-help); Unguided (not inter-active); Group; None	19; 61; 28; 50; 67	CESD > 20; BDI < 30	18.4 (15–22)		USA (English)	School	4-weekly sessions; completed during own time over 4 weeks; completed during own time over 4 weeks; 4-weekly 1-h sessions; n/a	BDI	19.05(6.41); 19.95 (5.99); 20.28 (5.78); 20.58 (6.55); 19.38 (5.98)	6	Published	Hogg Foundation; National Institute of Health (USA)

(Continues)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Stice (2008)	Placebo (supported); TAU; Unguided (not inter-active); Group	88; 84; 80; 89	CES-D > 20	15.6 (14–19)		New Zealand (English)	Primary Care	6-weekly 1-h sessions; NR; Completed during own time over 6 weeks; 6-weekly 1-h sessions	BDI	20.27 (9.83); 19.6 (9.23); 18.21 (7.53); 20.12 (10.38)	12	Published	National Institute of Health (USA)
Stikkelbroek (2020)	TAU; Individual	36; 34	KSADS (MDD)	16.6 (12–21)		The Netherlands (English)	Clinical	NR; 15 45-min-weekly sessions	CDI	24.1 (6.7); 27.1 (8.7)		Published	Dutch Organisation for Health Research and Development (Netherlands)
Topooco (2017)	Placebo (supported); Guided (inter-active)	35; 35	BDI > 14	17.5 (15–19)		Sweden (English)	Clinical	NR; 8 Individual CBT modules and 8 individual therapy-weekly sessions	BDI, MFQ	28.8(7.9), 35.2 (9.4); 31.6 (10), 36 (10.7)	12	Published	Swedish Central Bank; Queen Silvia's Jubilee Fund, Sweden-America Foundation; Swedish Society of Medicine; Swedish Psychotherapy Society (Sweden)

TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Topooco (2019)	Placebo (supported); Guided (inter-active)	37; 33	BDI > 14	17 (15–19)		Sweden (English)	Community	8-weekly sessions; 8 modules completed in own time and 8-weekly therapy sessions	BDI	32.3 (10.2); 33.1 (9.4)		Published	Queen Silvia's Jubilee Fund; Swedish Central Bank (Sweden)
Vostanis (1996)	Placebo (supported); Individual	28; 29	MFQ > 16	12.7 (8–17)	Depressed per DSM-III-R	UK (English)	Primary Care	9 fortnightly sessions spread over a maximum period of 6 months; 9 fortnightly session spread over a maximum period of 6 months	MFQ	28.6 (14.4); 33.4 (12.2)	9	Published	Merck Research Fund; Queen Elizabeth Psychiatric Hospital Trust-ees' Fund (UK)
Vuthiarpa (2012) <sup>a</sup>	TAU; Group	37; 37	CES-D >16, <24	15.5 (15–16)		Thailand (English)	School	NR; 12-weekly 1-h sessions	CES-D	19.74 (2.52); 19.66 (2.57)		Published	King Prajadhipok and Queen Rambhai Barni Memorial Foundation (Thailand)
Wijnhoven (2014)	None; Group	52; 50	CDI > 16	13.3 (11–15)		The Netherlands (English)	School	N/A; 8-weekly 50-min sessions	CDI, CES-D	19.31 (6.74); 24.68 (11.07); 15.82 (6.62); 19.53 (9.8)	6	Published	GGz Oost-Brabant; The Olim Foundation (Netherlands) (Continues)



TABLE 2 (Continued)

References	Nodes	Number randomly assigned to each group	Inclusion criteria	Mean age (Age range)	Additional characteristics	Country (language)	Setting	Dosage	Outcome measure	Mean baseline scores (SD)	Follow-up Points (in months)	Type of Publication	Funding Source
Woods (2011)	TAU; Group	12; 12	CDI > 63	14 (NR)		New Zealand (English)	School	NR; 8-weekly 90-min sessions	CDI	26.17 (4.32); 22.92 (6.63)	12	Published	Not reported
Wright (2019)	Placebo (self-help); Unguided (inter-active)	69; 70	MFQ > 20	15 (12–18)		UK (English)	Clinical	Weekly sessions, flexible for the participant; Weekly sessions, flexible for the participant	BDI, MFQ	16, 35.3 (6.6, 9.9); 18, 37.5 (6.9, 9.2)	12	Published	National Institute for Health Research (UK)
Yu (2000)	None; Group	116; 104	CDI (top 25%) FES (top 25%)	11.8 (9–14)		China (English)	School	N/A; 10-weekly 2-h sessions	CES-D	16.72 (9.29); 17.44 (9.47)		Unpublished	Not reported – PhD

Abbreviations: BDI, Beck's Depression Inventory; CBT, cognitive behavioural therapy; CESD/CES-D, Centre for Epidemiologic Studies Depression Scale; CES-DC, CESD for Children; CESD-R, CESD Revised; CDI, Children's Depression Inventory; CDRS-R, Children's Depression Rating Scale-Revised; FES, Family Environment Scale; DSM, Diagnostic and Statistical Manual of Mental Disorders; Group, group CBT; Guided self-help; HRSD, Hamilton Rating Scale for Depression; Individual, individual CBT; K-SADS, Children's Schedule for Affective Disorders and Schizophrenia; MASQ, Mood and Anxiety Symptom Questionnaire; MDD, major depressive disorder; MFQ, Mood and Feelings Questionnaire; N/a, not applicable; NR, not reported; PHQ--9 Patient Health Questionnaire; RADS/RDCDS, Reynolds Adolescent/Child Depression Scale; Remote, remotely-delivered CBT; QIDS-A-SR, Quick Inventory of Depressive Symptomatology – Adolescent Version; SD, standard deviation; SDS, Zung Self-Rating Depression Scale; SMFQ, Short MFQ; TAU, treatment-as-usual; Unguided, unguided self-help.

<sup>a</sup>Cluster-randomised controlled trial. All other studies are parallel group, individually-randomised controlled trials.

Norway, Puerto Rico, Spain and Turkey. Most included studies were written in English, except for one written in French (Marcotte, 1993) and one written in Persian (Rajabi, 2018).

### Participants

The mean age of participants ranged from 10 to 19.5 years. 12 studies had a mean age of participants between 10 and 13, 32 between 14 and 15 and 19 between 16 and 19 years. Five studies did not report the mean age. The distribution of mean age across trials by pairwise comparison of nodes is presented in Figure 3.

The proportion of females ranged from 7% to 100%. 17 studies had less than 50% females, 16 studies had 70% or more females. On average, 60% of participants were female. Four studies did not report participant gender.

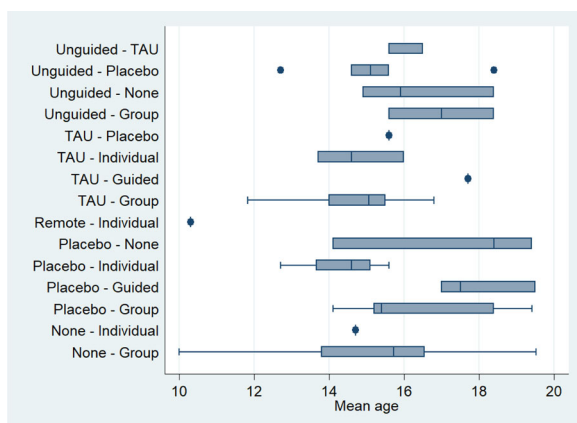
Studies assessed inclusion using a range of different tools. Most commonly, participants were assessed using the Beck Depression Inventory (BDI) or the Child Depression Inventory (CDI). Thirteen studies did not assess participants for inclusion using a measure of depression but were included in this review as the mean baseline scores met our criteria.

The cut-off for all scales used in the review are reported in Table 1.

Baseline severity was investigated by representing each trial's baseline score as a percent above the cut-off score for elevated depression symptoms relative to the scale's maximum possible score and evaluating within and across comparisons. This value is similar to the percent of maximum possible value, except it reflects the observed score relative to the scale's cut-off rather than the minimum value (Cohen, 2010). Severity appeared to be heterogenous within some comparisons, but was not a clear threat to transitivity (Figure 4).

### Interventions

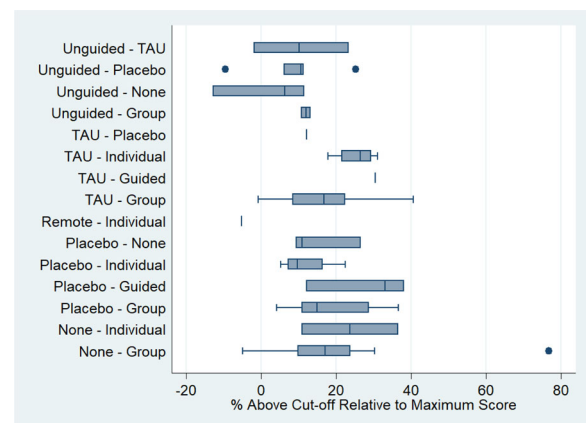
Amongst the 68 included studies, in terms of active treatment delivery models, 12 included therapist-delivered CBT in face-to-face individual sessions (individual CBT), 43 included therapist-delivered



**FIGURE 3** Boxplot of the distribution of mean age in individual trials across comparisons.

CBT in group sessions (group CBT) and one study included therapist-delivered CBT delivered remotely (remote CBT). The number of therapist-delivered sessions for these active interventions ranged from 4 to 16, the frequency of delivery from once every 2 weeks to twice a week and the duration of each session from 20 min to 2 h. Group sizes for group CBT ranged from 2 to 20, but were more commonly around 6 to 10. Thirteen studies evaluated unguided self-help and four studies evaluated self-help with therapist support (or guided self-help). The number of therapist-delivered sessions in the guided self-help models ranged from 1 to 8. The number of self-help modules across these two categories ranged from 4 to 12. The self-help interventions were further classified based on level of interactivity for the purposes of sensitivity analysis. Seven studies of unguided self-help and three studies of guided self-help were interactive, and six studies of unguided self-help and the self-help component of guided self-help in one study were not interactive.

Comparison interventions included no intervention/waitlist (30 studies; 25 waitlist, 5 no treatment), TAU (20) and placebo (21). Details about TAU were provided by 18 studies and were described as: freedom to continue pre-existing intervention or seek new assistance (4), self-help/written information (3), school nurse/counsellor (2), routine psychiatric interventions (1), therapy for depression (1), pharmacotherapy plus various therapy (1), counselling (1), vocational training (1), sessions with social worker (1), and various/self-selected (3). Placebos were classified as self-help (6), pill (1) and professionally supported (14). No systematic differences in dose of treatment were detected between interventions when delivered in trials with inactive control groups and trials with active controls.



**FIGURE 4** Boxplot of pretest depression scores in individual trials across comparisons. The score from each trial is represented as a percent above the cut-off score for elevated depression symptoms relative to the scale's maximum possible score. For example, if a trial had a pretest score of 30 on the Beck Depression Inventory Second Edition (cut-off of 14 and maximum possible score of 63), this would translate to a value of  $(30 - 14)/(63 - 14) * 100 = 33\%$ . Note that some trials have a value below the cut-off ( $<0\%$ ) because they used multiple scales within the trial, and the scale prioritised for the review (based on frequency of scales used across all studies), may not have been the scale used to determine patient eligibility in the study.

There was 83% agreement between reviewers in initial node assignment (kappa 0.79 [95% CI: 0.71 to 0.86]). Nodes from one study (Sheffield, 2006) were excluded from this analysis as the node assignment was decided through discussion. In five cases, the final node classification ended up being completely different from the reviewers' initial assignment after review and discussion. In one case, the reclassification involved active treatment (group CBT to guided self-help), while the remaining cases involved reclassifying control nodes to another control.

### Outcomes

Two studies did not use self-reported measures of depression and were thus not included in the quantitative analysis of the primary outcome (Rohde, 2014a, 2014b). Additionally, four studies were excluded from the analysis because we did not have suitable data to calculate the mean difference on the primary outcome at post-intervention and were unable to obtain the required data from the authors. The first, Stikkelbroek (2020), assessed individual CBT vs TAU and reported improvements in both conditions over time but no significant differences between conditions in self-reported depressive symptoms at post-treatment or 6-month follow-up. Similarly, Kobak (2015) compared individual CBT with TAU and found a reduction in depression in both groups and no significant difference in outcomes between trial arms. Lamb (1998) compared school-based group CBT with no treatment and also found reductions in depressive symptoms in both arms, with no significant differences between arms. Finally, Briere (2019) compared group CBT and an educational brochure in secondary schools and found significant differences, with greater reduction in symptoms of depression in group CBT compared to control at post-treatment, but no significant differences between arms at 6-month follow-up.

Of the 62 studies included in the quantitative analysis for the primary outcome at post-intervention, the most common measure was the Center for Epidemiologic Studies Depression Scale (CES-D). Other measures used and included in this review are BDI, CDI, Mood and Feelings Questionnaire (MFQ), and Reynolds Adolescent Depression Scale (RADS). One study each used the Short MFQ, Patient Health Questionnaire (PHQ-9), Zung Self-Rating Depression Scale (SDS), and Mood and Anxiety Symptom Questionnaire (MASQ).

For all measures, a lower score indicates a more beneficial outcome; no reversal of scale direction was necessary for combining data.

Just under a third of studies (19) followed-up participants between six and twelve months after post-intervention assessments.

62 studies were included in the secondary analysis of the measure attrition as a proxy for acceptability.

### 6.1.3 | Excluded studies

Reasons for exclusion were:

- Wrong study design: 35
- Wrong population: 198
- Wrong intervention: 24
- Wrong outcomes: 5
- Wrong comparator: 14
- Wrong analysis: 44

Where multiple criteria were not met, the first reason appearing in the above list is mentioned. These are reported in the PRISMA figure.

The most common reason was study population, as abstracts often did not mention the age group of participants and many studies included in full text screening were found to be focused on adults (e.g., Christensen, 2004; Richards, 2003; Salamanca-Sanabria, 2020). Other studies were excluded because participants may have had other mental health conditions, not necessarily clinical levels of depression (e.g., Caley, 2009; Weisz, 2012), or because participants did not score in the clinical range on validated measures of depression (e.g., Stallard, 2010; Weisz, 2009; Whittaker, 2017).

Studies that reported on the wrong outcome reported results for outcomes such as: depression diagnosis, suicidal ideation, QALYs, and cognitive styles.

### Ongoing Studies

Additionally, ten studies that appeared relevant were classified as ongoing or awaiting classification when more information becomes available.

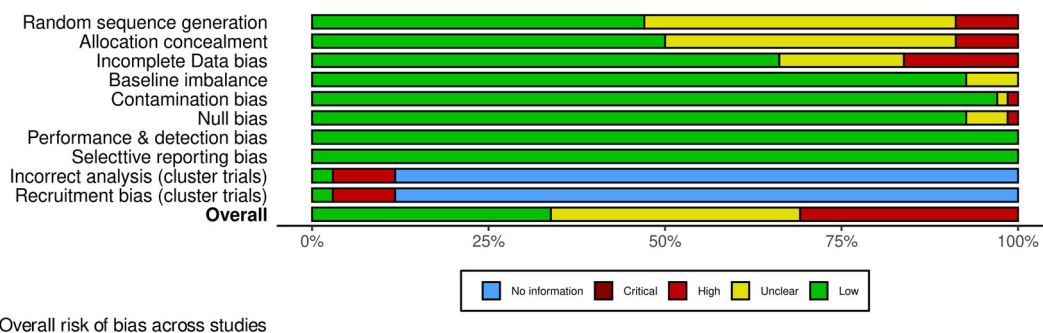


FIGURE 5 Overall risk of bias across studies.

	Risk of bias										Dvera
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	
Ackerson 1998	-	-	+	+	+	+	+	+			-
Alavi 2013	-	-	+	+	+	+	+	+			-
Araki 2019	+	+	-	+	+	+	+	+			-
Bella-Awusah 2016	+	X	+	+	+	+	+	+	X	X	X
Brent 1997	+	+	+	+	+	+	+	+			+
Briere 2019	-	+	+	+	+	+	+	+			-
Charkhandeh 2016	+	+	+	+	+	+	+	+			+
Clarke 1995	-	-	X	+	+	+	+	+			X
Clarke 1999	-	-	X	+	+	+	+	+			X
Clarke 2001	+	+	+	+	+	+	+	+			+
Clarke 2002	-	-	+	+	+	+	+	+			-
Clarke 2016	-	-	+	+	+	+	+	+			-
Congleton 1996	-	-	X	+	+	+	+	+			X
Cui 2016	-	-	+	+	+	+	+	+			-
Curtis 1993	-	-	+	+	+	+	+	+			-
DeCuyper 2004	-	X	+	+	+	+	+	+			X
Dobson 2010	+	+	+	+	+	+	+	+			+
Ede 2019	+	+	+	+	+	+	+	+			+
Ettelson 2003	-	-	+	-	+	+	+	+			-
Fischer 1996	X	X	-	+	-	+	+	+			X
Fleming 2012	X	+	X	+	X	+	+	+			X
Gaete 2016	+	+	+	+	+	-	+	+			+
Garber 2004	+	+	+	+	+	+	+	+			+
Hamamci 2006	-	-	+	+	+	-	+	+			-
Idsoe 2019	-	-	X	+	+	+	+	+	+	X	X
Ip 2016	+	+	-	+	+	X	+	+			-
Kaesornsamut 2012	+	-	+	+	+	+	+	+			-
Kahn 1988	-	+	+	+	+	+	+	+			-
Kennard 2006	+	+	+	+	+	+	+	+			+

FIGURE 6 Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Study	Kerfoot 2004	+	+	X	+	+	-	+	+	X	X	X
	Kobak 2015	-	X	-	+	+	+	+	+	X	X	X
	Lamb 1998	-	-	-	-	+	+	+	+			-
	Lewinsohn 1990	-	-	X	+	+	+	+	+			X
	Listug-Lunde 2004	-	-	X	+	+	+	+	+			X
	Makarushka 2012	-	-	+	+	+	+	+	+			-
	Marcotte 1993	X	-	-	+	+	+	+	+			X
	McLaughlin 2011	+	+	+	+	+	+	+	+			+
	Merry 2012	+	+	+	+	+	+	+	+			+
	Moldenhauer 2004	+	+	+	+	+	+	+	+			+
	Nelson 2003	+	+	X	+	+	+	+	+			X
	Parks 2013	-	-	+	+	+	+	+	+			-
	Phillips 2005	-	-	X	+	+	+	+	+			X
	Rajabi 2018	X	+	-	-	+	+	+	+			X
	Reynolds 1986	X	-	-	+	+	+	+	+			X
	Rohde 2006	+	+	+	+	+	+	+	+			+
	Rohde 2014a	+	+	+	+	+	+	+	+			+
	Rohde 2014b	+	+	+	+	+	+	+	+			+
	Rossello 1999	-	-	+	+	+	+	+	+			-
	Sanchez-Hernandez 2016	-	-	+	+	+	-	+	+			-
	Saranya 2017	+	+	+	+	+	+	+	+			+
	Saw 2019	-	-	+	+	+	+	+	+			-
	Saw 2020	+	+	+	+	+	+	+	+			+
	Sheffield 2006	-	+	+	+	+	+	+	+	X	X	X
	Singhal 2018	-	-	-	+	+	+	+	+	X	+	-
	Srivastava 2015	+	+	-	+	+	+	+	+			-
	Stallard 2012	+	+	+	+	+	+	+	+	+	+	+
	Stasiak 2014	+	+	+	-	+	+	+	+			+
Stice 2007	-	-	+	+	+	+	+	+			-	

FIGURE 6 (Continued)

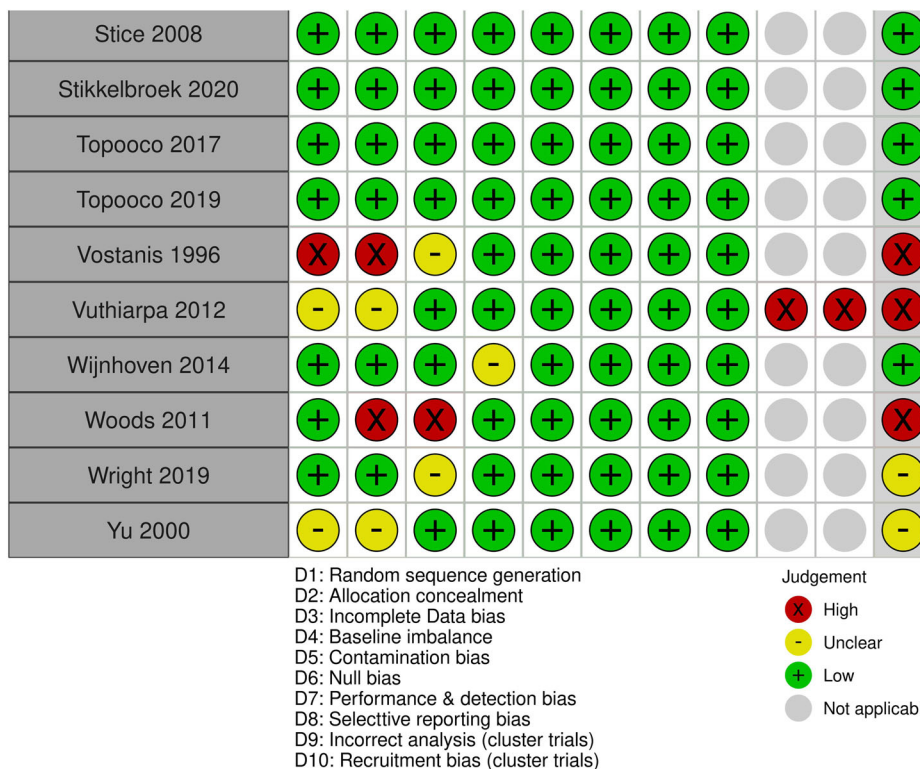


FIGURE 6 (Continued)

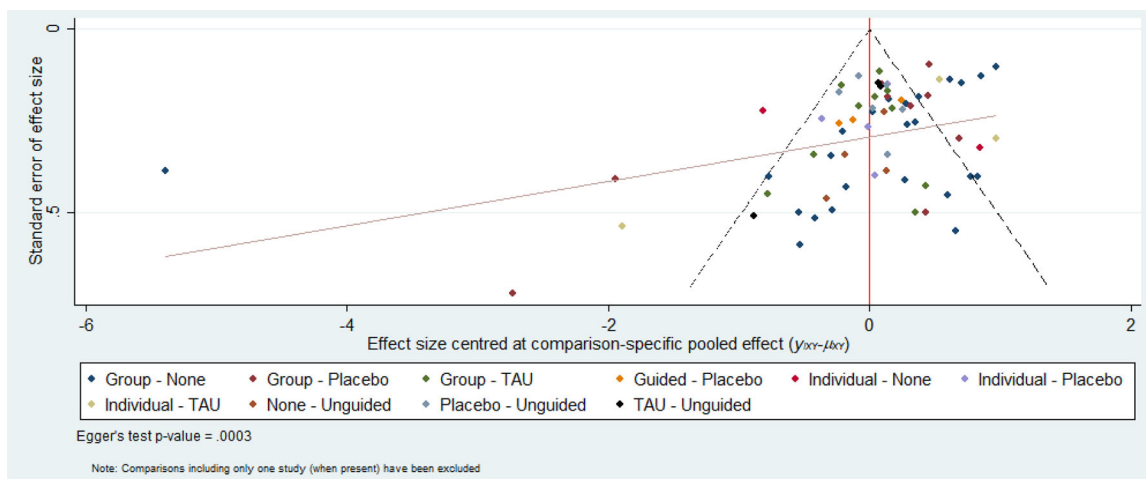


FIGURE 7 Comparison-adjusted funnel plot of active versus inactive comparisons for post-test depression score. A prediction line representing the linear regression of the effect size standard error on the adjusted effect size is included. Egger's test for small-study effects is statistically significant ( $p < 0.001$ ).

## 6.2 | Risk of bias in included studies

Figure 5 shows the overall risk of bias across studies by the different domains. Figure 6 lists the risk of bias individually for each study. These were created using <https://mcguinlu.shinyapps.io/robvis/>.

The risk of bias was low across all domains for 23 studies. 24 studies had some concerns and the remaining 21 were assessed to be at high risk of bias.

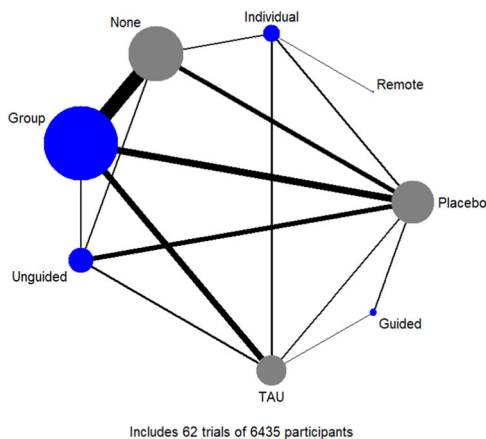
### 6.2.1 | Allocation

We assessed allocation bias through random sequence generation and allocation concealment. In addition, for cluster trials we assessed recruitment bias. Random sequence generation was considered adequate in less than half of the studies (32), whereas allocation concealment was considered adequate in 34 studies. In terms of recruitment bias, only two of the seven cluster trial studies were rated as low risk.

Across the three types of bias, only 28 studies were rated low risk. There were some concerns with 26 studies and 14 were rated as high risk. Reasons for a high risk rating included assessing eligibility/gaining consent post randomisation, reassigning participants after randomisation, small sample (only two schools in a cluster study), and poor randomisation techniques (e.g., sequential assignment).

## 6.2.2 | Blinding

Blinding of participants is not always possible for social interventions, and thus performance bias was rated low across the studies. Only



**FIGURE 8** Network plot for post-test depression score. Nodes are weighted by the number of patients randomised to that intervention, and edges are weighted by the number of trials comparing the two interventions.

self-reported measures were included in quantitative analysis and thus detection bias is also low across the studies.

## 6.2.3 | Incomplete outcome data

45 studies had no concerns in terms of incomplete data, whereas 12 had some concerns. The remaining 11 were assessed to be at high risk of bias due to incomplete data. Reasons included not undertaking intention-to-treat analysis (e.g., a minimum attendance required to be included in analysis), high dropout and lack of imputing missing data when there was a considerable level of missing data.

## 6.2.4 | Selective reporting

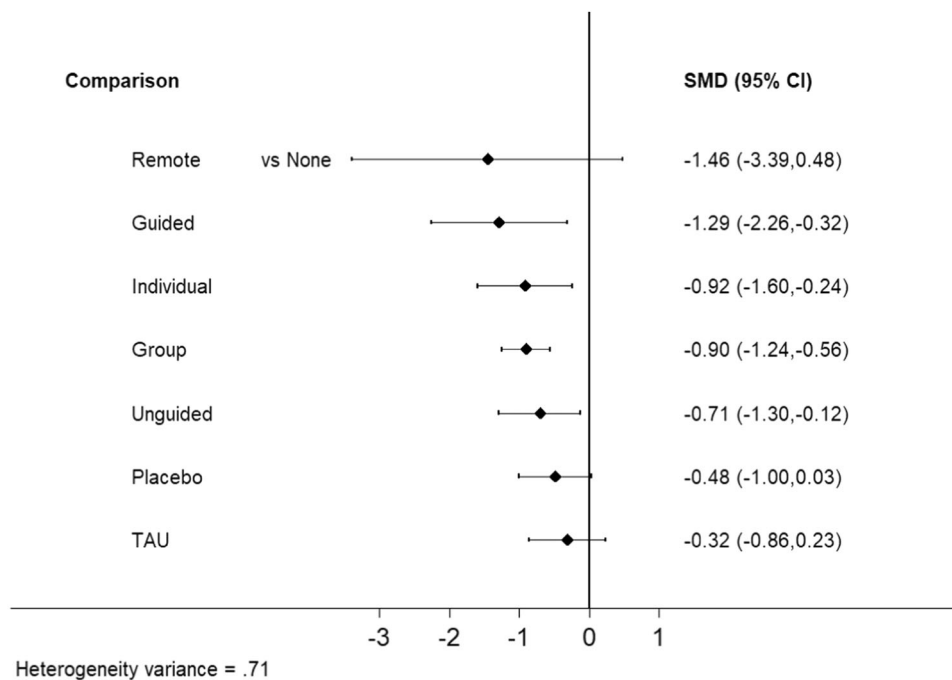
There were no concerns with selective reporting in any study.

## 6.2.5 | Other potential sources of bias

We also assessed baseline imbalance, null bias, contamination bias, and incorrect analysis for cluster trials.

Five studies did not report baseline equivalence and were rated to be at unclear risk, leaving 63 rated as low risk.

One study noted poor completion to be a concern, with only 10% having completed the intervention; this study was rated to be at high risk of null bias. Four other studies noted some concerns and were rated as unclear risk. The remaining 63 studies were assessed to be at low risk of null bias.



**FIGURE 9** Forest plot of posttest depression score network estimates comparing interventions and other controls with no intervention.

In terms of contamination bias, one study was assessed to be at high risk as one participant from the control group received the intervention. Another study was considered to be at unclear risk because some control group participants were reported to have received some intervention sessions. However, these participants were not included in the research protocol (considered in selection and attrition bias). The remainder were assessed to be at low risk as there were no concerns reported for other studies in terms of contamination bias.

Of the eight cluster trials, six were assessed to be at high risk of bias due to incorrect analysis because there was no adjustment for intracluster correlation. Sheffield (2006) did use a multi-level model including the cluster unit and time to account for clustering; however, the reporting of this analysis was insufficient to include in quantitative synthesis, and arm-level results had to be adjusted using imputed ICCs, and was therefore rated at high risk.

### 6.2.6 | Publication bias

Publication bias is suspected amongst studies comparing active and inactive control treatments. The comparison-adjusted funnel plot suggests that smaller studies tended to estimate greater improvements in post-treatment depression score from active treatments than larger studies do, with the Egger's test for small-study effects being statistically significant ( $p < 0.001$ ) (Figure 7).

## 6.3 | Effects of interventions

### 6.3.1 | Network meta-analysis of cognitive behavioural therapy approaches

#### Primary outcomes

*Depressive symptoms final score at post-intervention.* Sixty-two RCTs (representing 6435 participants) were included in the pairwise and network meta-analyses for post-intervention depressive symptom score. Figure 8 presents a network plot showing how treatments were compared across the included RCTs. All pre-specified treatment and control categories were represented by at least one RCT. The number of RCTs comparing two interventions ranged between 1 and 24. Group CBT was the most commonly evaluated active condition and no intervention was the most commonly used control comparator. The network geometry indicates that guided self-help has not been directly evaluated against another active treatment and rCBT has only been compared to individual CBT.

Of the seven cluster-randomised trials included in the analysis, two (Idsoe, 2019; Stallard, 2012) reported ICCs derived from the analysis (range of 0.025 to 0.099), and these values were

TABLE 3 League table for post-test depression score.

Guided	Remote	Group	Individual	Placebo	TAU	SUCRA
0.17 (-1.92, 2.26)	-	-	-	-	-	-
-0.38 (-1.33, 0.56)	0.55 (-2.48, 1.38)	0.02 (-0.65, 0.68)	-	-0.49 (-0.87, -0.11)	-0.38 (-0.51, -0.24)	-0.87 (-1.23, -0.51)
-0.37 (-1.41, 0.68)	-0.54 (-2.35, 1.28)	0.02 (-0.65, 0.68)	Individual	-0.04 (-0.26, 0.18)	-0.91 (-2.02, 0.20)	-1.19 (-2.82, 0.44)
-0.58 (-1.58, 0.43)	-0.75 (-2.72, 1.22)	-0.20 (-0.77, 0.38)	-0.21 (-0.98, 0.56)	Unguided	-0.29 (-0.60, 0.01)	-0.68 (-1.00, -0.37)
-0.80 (-1.67, 0.07)	-0.97 (-2.89, 0.95)	-0.42 (-0.89, 0.05)	-0.44 (-1.07, 0.20)	-0.22 (-0.79, 0.34)	Placebo	-
-0.97 (-1.93, -0.01)	-1.14 (-3.07, 0.79)	-0.59 (-1.06, -0.11)	-0.60 (-1.28, 0.07)	-0.39 (-1.03, 0.25)	-0.17 (-0.74, 0.40)	-
-1.29 (-2.26, -0.32)	-1.46 (-3.39, 0.48)	-0.90 (-1.24, -0.56)	-0.92 (-1.60, -0.24)	-0.71 (-1.30, -0.12)	-0.48 (-1.00, 0.03)	None
82.6%	76.9%	67.1%	66.0%	50.9%	31.9%	21.0%
						3.5%

Note: Standardised mean differences (95% confidence intervals) for each comparison in the analysis of post-test depression score. Estimates below the diagonal represent network meta-analysis results while those above represent pairwise meta-analysis results. Below the diagonal, standardised mean difference < 0 favours the intervention in the column (above the diagonal, < 0 favours the intervention in the row). Values are underlined when one intervention demonstrated superiority based on the confidence interval. Interventions are ordered based on the SUCRA values. Abbreviations: CBT, cognitive behavioural therapy; Group, group CBT; Guided, guided self-help; Individual, individual CBT; Remote, remotely-delivered CBT; SUCRA, surface under the cumulative ranking area curve; TAU, treatment-as-usual; Unguided, unguided self-help.



used to adjust the standard error. One (Kerfoot, 2004) reported that it assumed an ICC of 0.3 in its sample size calculation, and we used this value for adjustment. The remaining trials did not report ICCs, and because of a generally similar setting, we imputed the value reported in Stallard (2012) (0.025) for the adjustment.

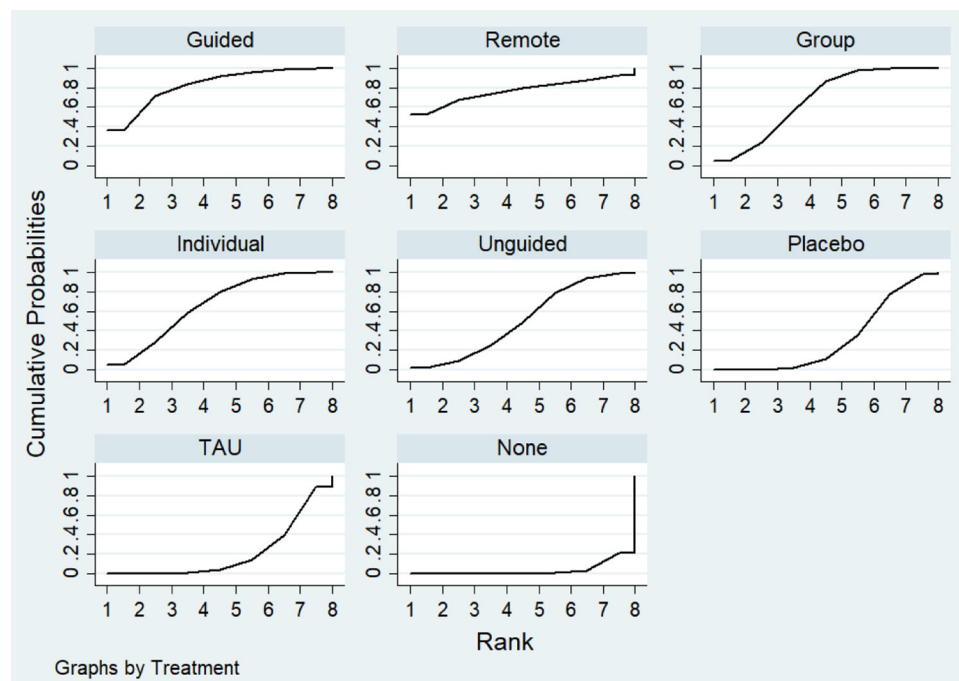
All active interventions except for remote CBT demonstrated superiority compared to no intervention, with the effectiveness ranging from an SMD of  $-1.29$  (95% CI:  $-2.26$  to  $-0.32$ ) for guided self-help to  $-0.71$  (95% CI:  $-1.30$  to  $-0.12$ ) for unguided self-help (Figure 9, Table 3). Fewer demonstrated superiority compared to TAU, and none to the placebo condition. In terms of comparative effectiveness, no active treatment demonstrated superiority over another, with the certainty of evidence ranging from low to very low. The highest and lowest ranking interventions were guided self-help (SUCRA 83%) and unguided self-help (SUCRA 51%), respectively (*very low certainty in treatment ranking*) (Figure 10, Table 3). Pairwise meta-analytic findings were generally similar to those of the network meta-analysis (Figure 11).

Based on  $\chi^2$  and  $I^2$  statistics, heterogeneity within pairwise comparisons ranged from not important to considerable (Figure 11). At the network meta-analytic level, the extent of heterogeneity appeared to be moderate ( $\tau^2 = 0.71$ ) compared to the empirical distribution for non-pharmacological interventions with mental health outcomes measured on a continuous scale (median  $\tau^2 = 0.058$ , 95% range = 0.001 to 2.58) (Rhodes, 2015). The loop-specific approach showed incoherence for the guided self-help, placebo, and TAU closed loop of evidence (incoherence

factor [IF] = 0.803, 95% CI: 0.05 to 1.56,  $p = 0.037$ ). The source of incoherence in this loop appears to be Saranya 2017, which is the only study comparing guided self-help and TAU, was conducted in an incarcerated population, and found a fairly large effect size for the treatment. While the node-splitting approach did not demonstrate clear incoherence (incoherence  $p$ -values ranged from 0.209 to 1.000), the direct and indirect estimates were notably different for individual CBT versus placebo, with the direct estimate suggesting no important difference between the groups (SMD  $-0.04$ , 95% CI:  $-0.26$  to 0.18) and the indirect estimate indicating there may be an important difference (SMD  $-0.85$ , 95% CI:  $-1.79$  to 0.10). The design-by-treatment interaction model did not detect incoherence ( $p = 0.973$ ).

*Depressive symptoms final score at 6 to 12 months follow-up.* Nineteen RCTs (representing 3260 participants) were included in the pairwise and network meta-analyses for 6 to 12 months follow-up depressive symptom score.

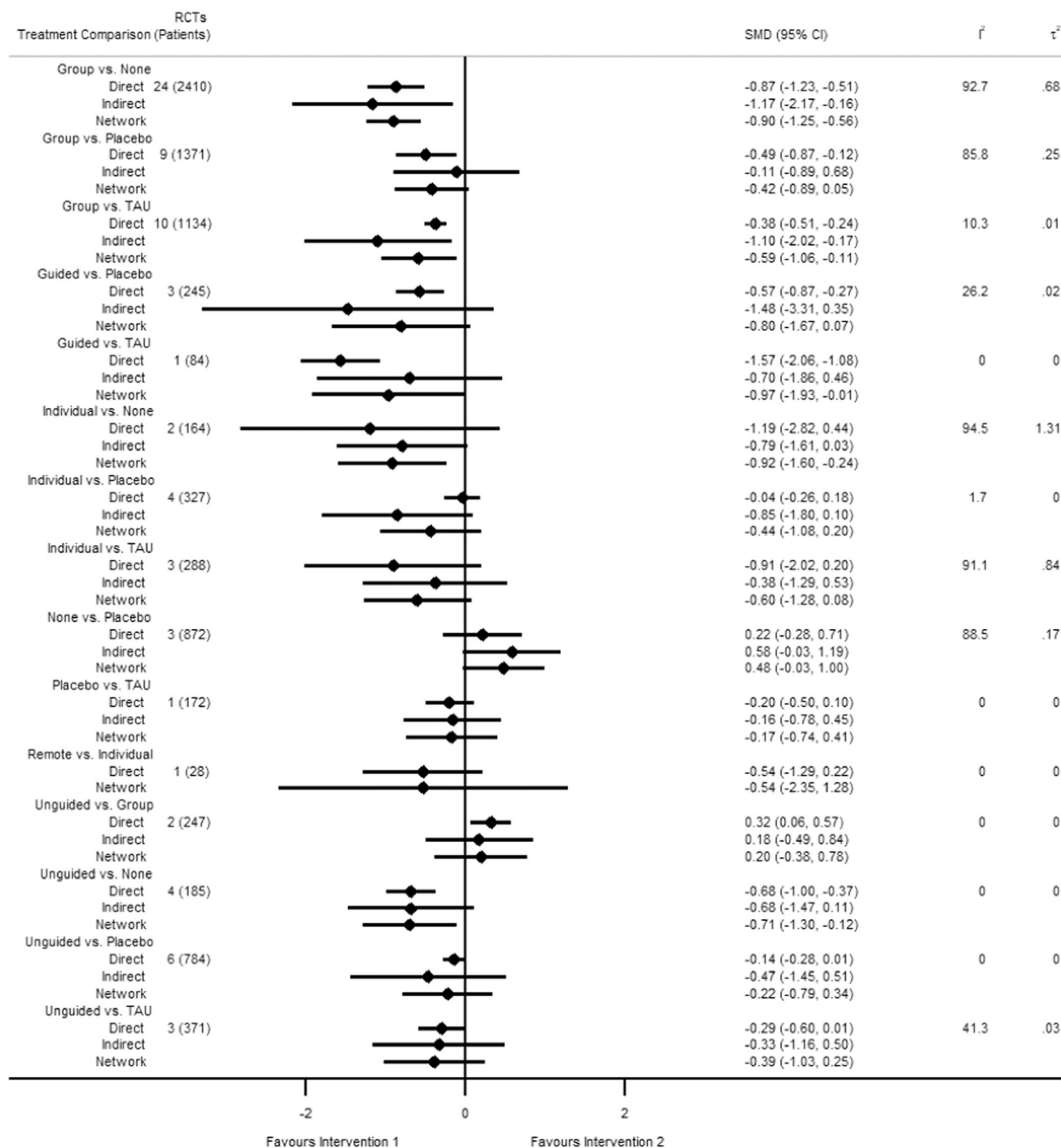
Figure 12 presents a network plot showing how treatments were compared across the included RCTs. Neither guided self-help nor remote CBT were evaluated in the RCTs for this time point. The number of RCTs comparing two interventions ranged between 1 and 7. Group CBT was the most commonly evaluated active condition and placebo was the most commonly used control comparator. The network geometry indicates that individual CBT has not been directly evaluated against another active treatment.



**FIGURE 10** Cumulative ranking probabilities for each intervention in the post-test depression score network. Rank indicates the cumulative probability of the intervention being the best method, the second best, the third best, and so forth.

The magnitude of effects appeared to be generally attenuated for 6- to 12-month outcomes compared to posttest. No interventions demonstrated superiority to no intervention (Figure 13), although unguided self-help (SMD -0.39, 95% CI: -0.75 to -0.03) and group

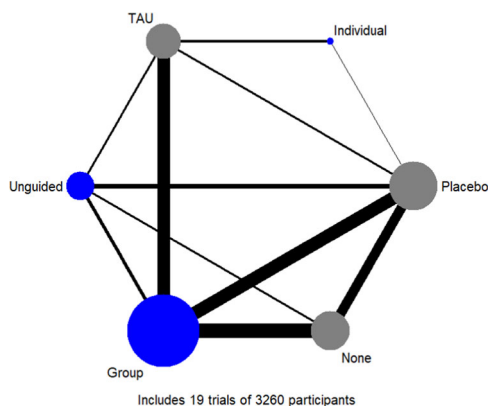
CBT (-0.29, 95% CI: -0.51 to -0.07) both demonstrated superiority compared to TAU (Table 4). No active treatment demonstrated superiority over another. The highest and lowest ranking interventions were unguided self-help (SUCRA 84%) and individual CBT



**FIGURE 11** Forest plot of direct estimates of comparative effectiveness of interventions, with corresponding indirect and network estimates, for post-test depression score. Intervention 1 is the treatment listed to the left in the treatment comparison column, and Intervention 2 is the treatment on the right. Sample size (number of randomised controlled trials and patients) and heterogeneity measures ( $I^2$  and  $\tau^2$ ) are provided for the direct estimates.

(SUCRA 35%), respectively (Figure 14, Table 4). Pairwise meta-analytic findings were similar to those of the network meta-analysis (Figure 15).

Based on  $\chi^2$  and  $I^2$  statistics, heterogeneity within pairwise comparisons ranged from not important to substantial (Figure 15). At the network meta-analytic level, the extent of heterogeneity appeared to be small ( $\tau^2 = 0.06$ ) based on the empirical distribution for non-pharmacological interventions with mental health outcomes measured on a continuous scale (median  $\tau^2 = 0.058$ , 95% range = 0.001 to 2.58) (Rhodes, 2015). The loop-specific



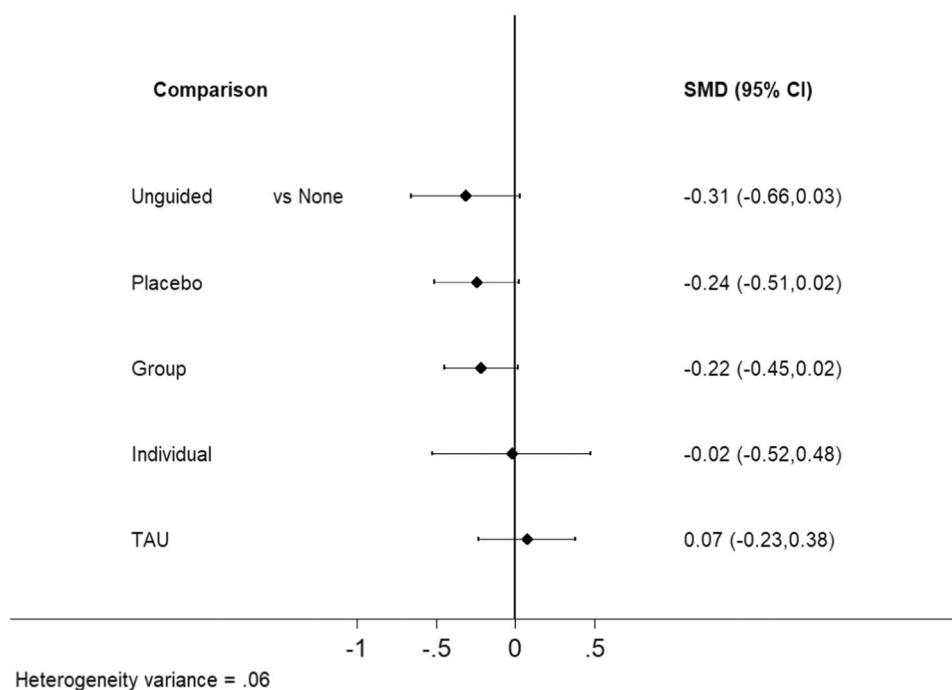
**FIGURE 12** Network plot for 6- to 12-month follow-up depression score. Nodes are weighted by the number of patients randomised to that intervention, and edges are weighted by the number of trials comparing the two interventions.

(IF  $p$ -values ranged from 0.228 to 0.944), node-splitting (incoherence  $p$ -values ranged from 0.186 to 0.759), and design-by-treatment interaction model ( $p = 0.979$ ) approaches did not detect any incoherence.

### Secondary outcomes

**Acceptability of intervention.** Sixty-two RCTs (representing 7347 participants) were included in the pairwise and network meta-analyses for intervention acceptability as measured by study attrition. Across these 62 studies, attrition rate was on average 11.2% at posttest. These 62 studies involved 130 intervention/control arms that can be classified as one of the nodes in this review. Attrition rate was calculated for each node and is reported in Table 5. Dropout from treatment was reported in only 13 studies. There was no dropout in one study, less than 5% in six studies, between 5% and 10% in 2 studies, and greater than 10% in the remaining 4 studies.

Figure 16 presents a network plot showing how treatments were compared across the included RCTs. All pre-specified treatment and control categories were represented by at least one RCT. The number of RCTs comparing two interventions ranged between 1 and 22. Group CBT was the most commonly evaluated active condition and no intervention was the most commonly used control comparator. The network geometry indicates that guided self-help has not been directly evaluated against another active treatment and remote CBT has only been compared to individual CBT.



**FIGURE 13** Forest plot of 6- to 12-month follow-up depression score network estimates comparing interventions and other controls with no intervention.

Although point estimates tended to favour no intervention, no active treatments were clearly inferior, with estimates ranging from an OR of 1.45 (95% CI: 0.31 to 6.85) for remote CBT to 0.97 (95% CI: 0.58 to 1.60) for individual CBT (Figure 17, Table 6). Findings were similar with TAU or placebo as the comparator. No active treatment demonstrated superiority over another. The highest and lowest ranking active interventions were individual CBT (SUCRA 60%) and group CBT (SUCRA 21%), respectively

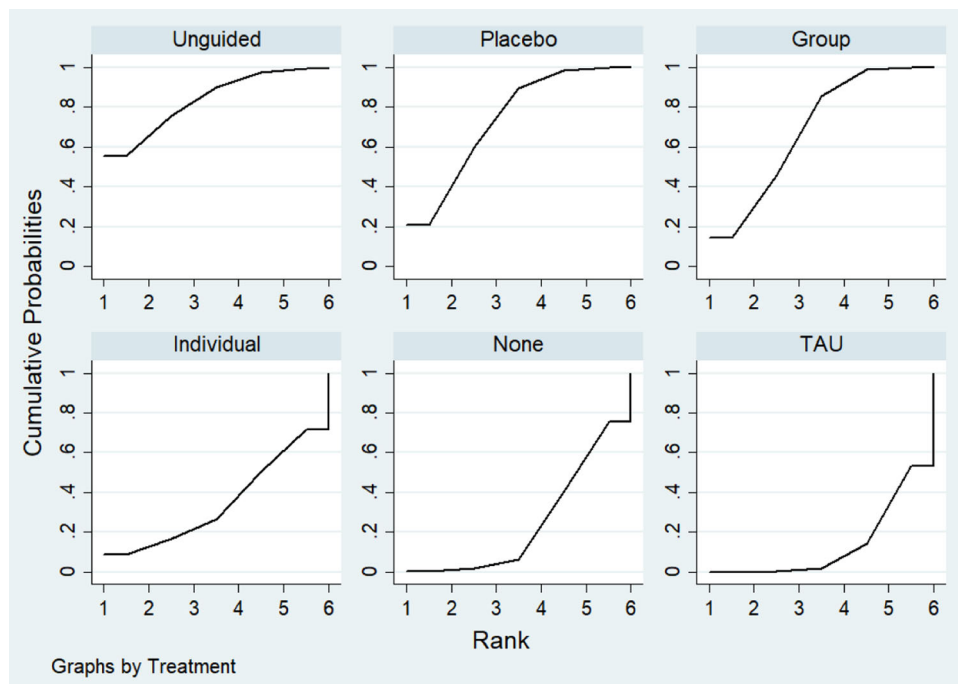
(Figure 18, Table 6). Pairwise meta-analytic findings were similar to those of the network meta-analysis (Figure 19).

Based on  $\chi^2$  and  $I^2$  statistics, heterogeneity within pairwise comparisons ranged from not important to considerable (Figure 19). At the network meta-analytic level, the extent of heterogeneity appeared to be minimal ( $\tau^2 \approx 0$ ) based on the empirical distribution for non-pharmacological interventions with semi-objective outcomes measured by OR (median  $\tau^2 = 0.056$ , 95%

**TABLE 4** League table for 6- to 12-month follow-up depression scores.

<b>Unguided</b>	-0.04 (-0.28, 0.19)	-0.19 (-0.50, 0.13)	-	<u>-0.49 (-0.87, -0.11)</u>	-0.18 (-0.49, 0.12)
-0.07 (-0.39, 0.24)	<b>Placebo</b>	-0.05 (-0.08, 0.17)	0.03 (-0.49, 0.56)	0.15 (-0.36, 0.66)	-0.24 (-0.54, 0.06)
-0.10 (-0.42, 0.22)	-0.03 (-0.25, 0.19)	<b>Group</b>	-	-0.25 (-0.59, 0.08)	<u>-0.33 (-0.57, -0.08)</u>
-0.29 (-0.82, 0.24)	-0.22 (-0.68, 0.24)	-0.19 (-0.65, 0.27)	<b>Individual</b>	-	0.01 (-0.26, 0.28)
-0.31 (-0.66, 0.03)	-0.24 (-0.51, 0.02)	-0.22 (-0.45, 0.02)	-0.02 (-0.52, 0.48)	<b>None</b>	-
<u>-0.39 (-0.75, -0.03)</u>	<u>-0.32 (-0.60, -0.03)</u>	<u>-0.29 (-0.51, -0.07)</u>	-0.10 (-0.54, 0.34)	-0.07 (-0.38, 0.23)	<b>TAU</b>
<b>SUCRA</b>					
83.6%	73.8%	68.9%	34.8%	25.0%	13.9%

Note: Standardised mean differences (95% confidence intervals) for each comparison in the analysis of 6 to 12 month-follow-up depression score. Estimates below the diagonal represent network meta-analysis results while those above represent pairwise meta-analysis results. Below the diagonal, standardised mean difference < 0 favours the intervention in the column (above the diagonal, < 0 favours the intervention in the row). Values are underlined when one intervention demonstrated superiority based on the confidence interval. Interventions are ordered based on the SUCRA values. Abbreviations: CBT, cognitive behavioural therapy; Group, group CBT; Individual, individual CBT; SUCRA, surface under the cumulative ranking area curve; TAU, treatment-as-usual; Unguided, unguided self-help.



**FIGURE 14** Cumulative ranking probabilities for each intervention in the 6- to 12-month follow-up depression score network. Rank indicates the cumulative probability of the intervention being the best method, the second best, the third best, and so forth.

range = 0.001 to 2.35) (Turner 2012). The loop-specific (IF *p*-values ranged from 0.486 to 0.875), node-splitting (incoherence *p*-values ranged from 0.255 to 0.999), and design-by-treatment interaction model (*p* = 0.801) approaches did not detect any incoherence.

Subgroup and sensitivity analyses

Depressive symptoms final score at post-intervention.

Subgroups by age category. Fifty-seven of the 62 trials included in the overall analysis for post-test depression score reported

participant mean age. The mean age of participants was between 10 and 13 for 12 RCTs, between 14 and 15 for 28 RCTs, and between 16 and 19 for 17 RCTs (Figure 20). Group CBT was the most commonly studied intervention for all subgroups. Guided self-help was only evaluated amongst RCTs focusing on participants in the oldest age category, while remote CBT was only evaluated in an RCT focusing on participants in the youngest category.

There may be subgroup effects by age category. Using the no intervention control group as the reference, the magnitudes of effects appear to be larger for the oldest age categories compared

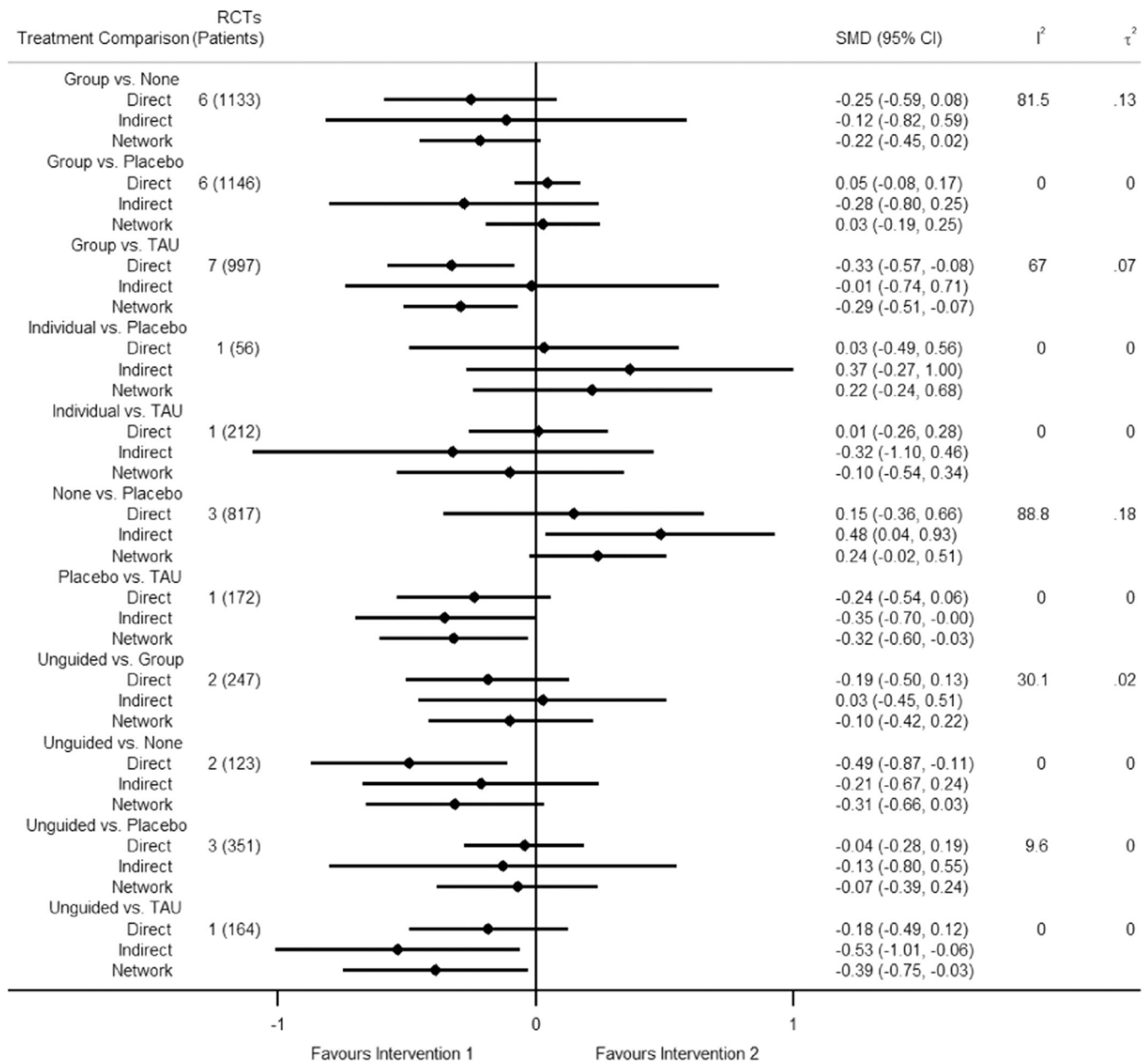
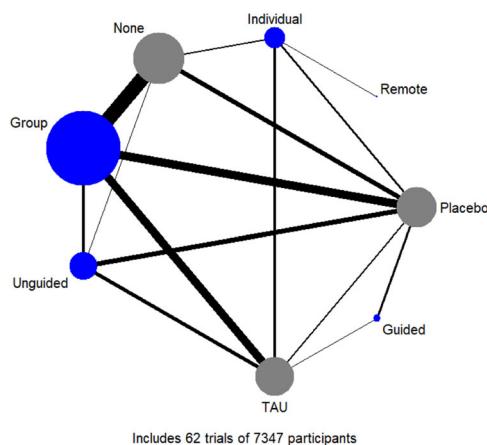


FIGURE 15 Forest plot of direct estimates of comparative effectiveness of interventions, with corresponding indirect and network estimates, for 6- to 12-month follow-up depression score. Intervention 1 is the treatment listed to the left in the treatment comparison column, and Intervention 2 is the treatment on the right. Sample size (number of randomised controlled trials and patients) and heterogeneity measures (I<sup>2</sup> and τ<sup>2</sup>) are provided for the direct estimates.

**TABLE 5** Attrition by node.

Node	Average completion	Data from number of trial arms
No intervention	92.6%	27/30
Therapist-delivered CBT – Group	89.4%	37/44
Placebo	88.6%	19/21
TAU	87.4%	18/21
Guided self-help	87.4%	4/4
Unguided self-help	87.1%	12/13
Individual CBT	84.3%	12/12
Remotely-delivered CBT	70.0%	1/1
Across nodes	88.8%	130/146

**FIGURE 16** Network plot for intervention acceptability. Nodes are weighted by the number of patients randomised to that intervention, and edges are weighted by the number of trials comparing the two interventions.

to the other subgroups for each given comparison. However, they were also generally less precise and formal testing only indicated a significant difference for group CBT (Figure 21).

**Sensitivity analyses.** Our findings were generally robust to pre-specified sensitivity analyses separating out the type of placebo and excluding cluster-RCTs, as well as an additional analysis excluding studies where we had imputed SDs (Table 7). In the pre-specified analysis excluding studies allowing for interactivity of the intervention, the effect for guided self-help, the highest-ranking intervention in the primary analysis, was notably attenuated (primary analysis SMD vs. no intervention:  $-1.29$ ; sensitivity analysis SMD vs. no intervention:  $-0.77$ ). We were not able to conduct the analyses evaluating the effects of intervention components due to lack of reported information in the studies, nor were we able to exclude studies using unvalidated measures due to all studies using validated measures.

## 7 | DISCUSSION

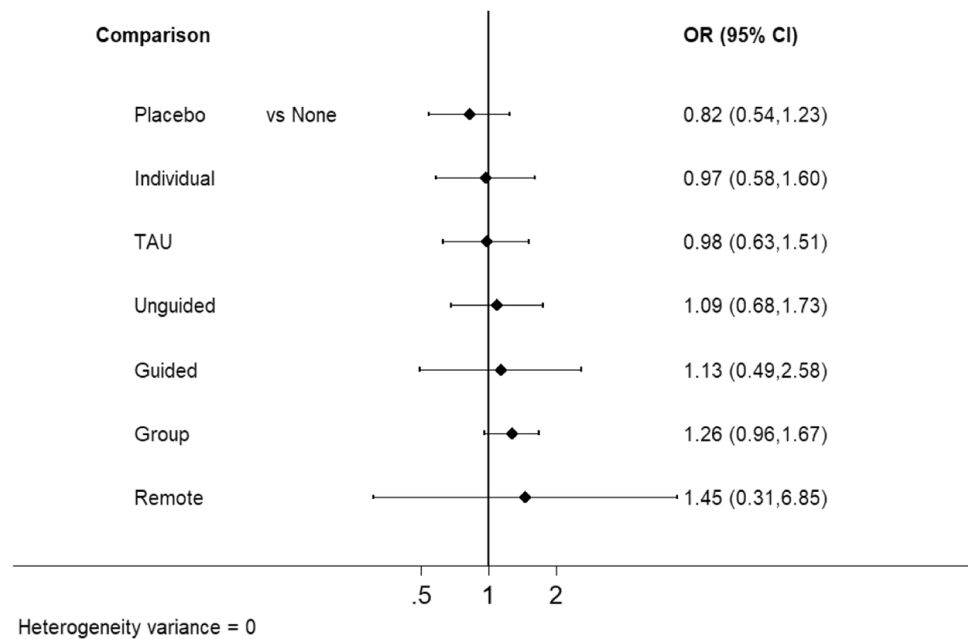
### 7.1 | Summary of main results

Sixty-two studies were included in the network meta-analysis for the primary outcome of depression symptoms at posttreatment, and each of the pre-specified treatment and comparison nodes was represented as a trial arm by at least one study. At posttreatment, all active treatments (guided self-help, group CBT, individual CBT, and unguided self-help) except for remote CBT were found to be more effective than no treatment. However, only guided self-help and group CBT were found to be more effective than TAU. Guided self-help was the most highly ranked intervention, but the subgroup analysis revealed that it was only evaluated in trials with the oldest adolescents (ages 16–19 years). The results for remotely-delivered CBT should be treated with caution as it was only evaluated in one included study with the youngest adolescents (10–13 years). The magnitude of effects also appeared to be greatest in the older age categories for each comparison, where these age groups were included in studies. However, this needs to be interpreted with caution due to the possibility of ecological bias.

The standardised effects at posttreatment are presented in terms of the difference in points on the BDI-II between active interventions in the Summary of findings Table 1. These scores ranged from mean differences of 6.8 points to 0.2 points between intervention delivery formats. For context, the minimum clinically important difference in scores on the BDI-II is likely to fall in the range of 3–6 points, with average treatment effects of antidepressants being 2 points (Hengartner, 2021).

Nineteen studies reported data for depressive symptom outcomes at 6–12 month follow up. None of the included studies evaluating guided self-help or remote CBT reported outcomes at this time point. The magnitude of effects appeared to be generally attenuated for 6- to 12-month outcomes compared to post-intervention. Although unguided self-help was the lowest-ranked active intervention at post-intervention, it was the most highly ranked at 6 to 12-month follow-up.

In the analysis of treatment acceptability, 62 studies were included, with at least one study representing each of the pre-specified active and control nodes in the network. We did not find clear evidence that any of the active treatments were more acceptable to participants than any others, based on attrition. This is in line with a review which found that drop-out rates for computerised CBT for depression was similar to drop-out rates for other psychological therapies including face-to-face CBT (Kaltenthaler, 2008), as well as another review which found no significant differences in acceptability between delivery formats of CBT for adults with depression (Cuijpers, 2019). In addition, a recent rapid review of the evidence found that engagement was lower and drop-out was higher when adolescents were randomised to mental health treatment delivery formats, with drop-out being much lower when young people could



**FIGURE 17** Forest plot of intervention acceptability network estimates comparing interventions and other controls with no intervention.

**TABLE 6** League table for intervention acceptability.

<b>Placebo</b>	0.86 (0.49, 1.5)	2.93 (0.3, 28.74)	0.96 (0.46, 2)	0.72 (0.4, 1.3)	0.45 (0.12, 1.74)	-	0.66 (0.42, 1.03)
0.85 (0.55, 1.29)	<b>Individual</b>	1.05 (0.63, 1.75)	0.71 (0.18, 2.79)	-	-	0.67 (0.15, 2.89)	-
0.84 (0.56, 1.25)	0.99 (0.66, 1.50)	<b>TAU</b>	-	1.04 (0.54, 1.99)	1 (0.02, 51.57)	-	0.94 (0.51, 1.74)
0.82 (0.54, 1.23)	0.97 (0.58, 1.60)	0.98 (0.63, 1.51)	<b>None</b>	1.81 (0.47, 6.98)	-	-	0.75 (0.57, 1.01)
0.75 (0.53, 1.08)	0.89 (0.53, 1.48)	0.90 (0.57, 1.41)	0.92 (0.58, 1.47)	<b>Unguided</b>	-	-	1.39 (0.52, 3.7)
0.72 (0.36, 1.45)	0.86 (0.38, 1.93)	0.86 (0.39, 1.91)	0.89 (0.39, 2.02)	0.96 (0.43, 2.14)	<b>Guided</b>	-	-
0.56 (0.12, 2.60)	0.67 (0.15, 2.90)	0.67 (0.15, 3.10)	0.69 (0.15, 3.26)	0.75 (0.16, 3.55)	0.78 (0.15, 4.17)	<b>Remote</b>	-
<u>0.65 (0.45, 0.94)</u>	0.77 (0.48, 1.22)	0.77 (0.54, 1.11)	0.79 (0.60, 1.05)	0.86 (0.56, 1.32)	0.89 (0.40, 2.00)	1.15 (0.25, 5.36)	<b>Group</b>
<b>SUCRA</b>							
84.8%	59.7%	59.6%	56.7%	42.9%	42.3%	32.6%	21.3%

Note: Odds ratios (95% confidence intervals) for each comparison in the analysis of intervention acceptability. Estimates below the diagonal represent network meta-analysis results while those above represent pairwise meta-analysis results. Below the diagonal, odds ratio < 1 favours the intervention in the column (above the diagonal, < 1 favours the intervention in the row). Values are underlined when one intervention demonstrated superiority based on the confidence interval. Interventions are ordered based on the SUCRA values.

Abbreviations: CBT, cognitive behavioural therapy; Group, group CBT; Guided, guided self-help; Individual, individual CBT; Remote, remote CBT; SUCRA, surface under the cumulative ranking area curve; TAU, treatment-as-usual; Unguided, unguided self-help.

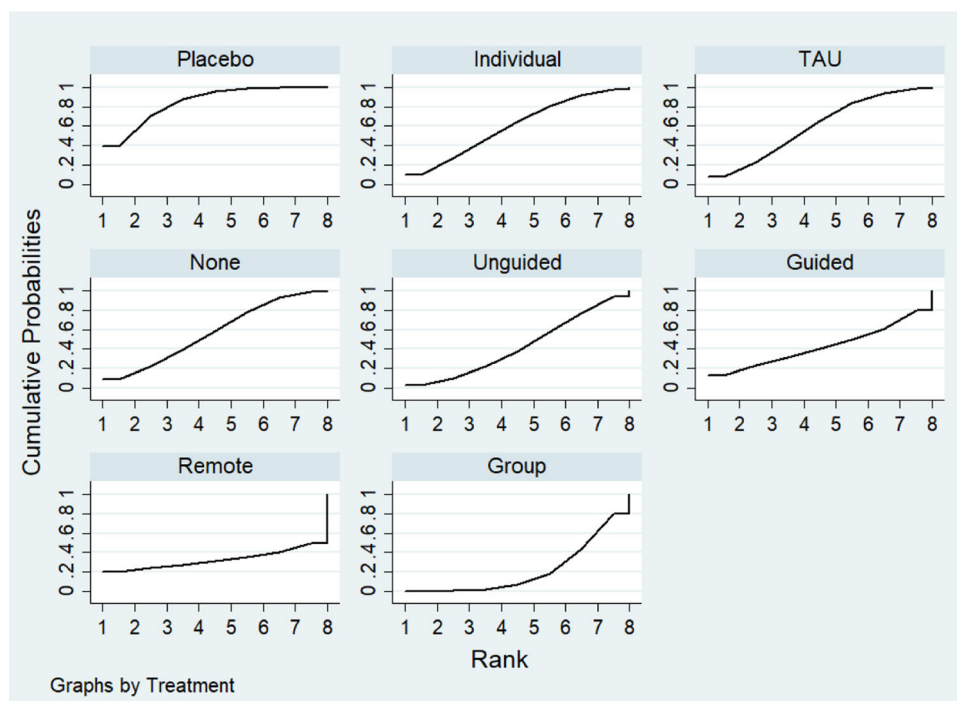
choose how to access support, indicating that randomised trials may not be the optimum design for assessing acceptability of different delivery formats (James, 2020).

## 7.2 | Overall completeness and applicability of evidence

Only one study examining remote delivery of CBT for younger adolescents with depression was retrieved in the search, limiting

the conclusions that may be drawn about the relative effectiveness of this particular mode of delivery and its effectiveness for older adolescents. In addition, all studies evaluating guided self-help included older adolescents. These results may therefore only be applicable to this age group and research is needed to assess the effectiveness and acceptability of guided self-help for younger adolescents with depression.

Very few studies included a follow-up assessment 6 to 12 months after the end of the intervention. Although this is a common problem in trials of interventions, it is important that



**FIGURE 18** Cumulative ranking probabilities for each intervention in the intervention acceptability network. Rank indicates the cumulative probability of the intervention being the best method, the second best, the third best, and so forth.

future studies follow young people up over longer periods to determine whether the effects of different delivery models of CBT are maintained.

Studies conducted in the United States were overrepresented ( $n = 29$ ), potentially affecting the generalisability of the findings. However, this is not a major concern as studies from 21 different countries were included, representing a range of contexts. We were unable to find some papers ( $n = 39$ ) or obtain the required information for others (Studies awaiting classification,  $n = 5$ ) and thus these were excluded from the review, despite our attempts to contact authors.

We excluded studies in which the intervention was focused on treating comorbid conditions, which may be atypical for the population seen by services (Essau, 2009; Rao, 2009).

### 7.3 | Quality of the evidence

Overall, our confidence in the evidence for post-test depression symptoms was low or very low. Reasons for downgrading the evidence include a high prevalence of studies at unclear or high risk of bias in the network, the inclusion of some moderately indirect studies, imprecise effect estimates, and heterogeneity between the studies within some comparisons. Although heterogeneity appears to be moderate to large for a few comparisons, most of the comparisons have a fairly small evidence base. These

cases preclude reliably estimating heterogeneity statistics as well as thoroughly investigating how sources of heterogeneity may differ between comparisons and affect transitivity. Three studies (Fischer, 1996; Rohde, 2004; Saranya, 2017) were considered to be indirect due to using incarcerated adolescent populations, three (Araki, 2019; Topooco, 2017, 2019) due to transitivity concerns with the comparison they assessed (guided self-help vs. Placebo) only focusing on older adolescents, and one study (Nelson, 2003) due to transitivity concerns with it being the sole representative for a direct comparison (individual CBT and remote CBT).

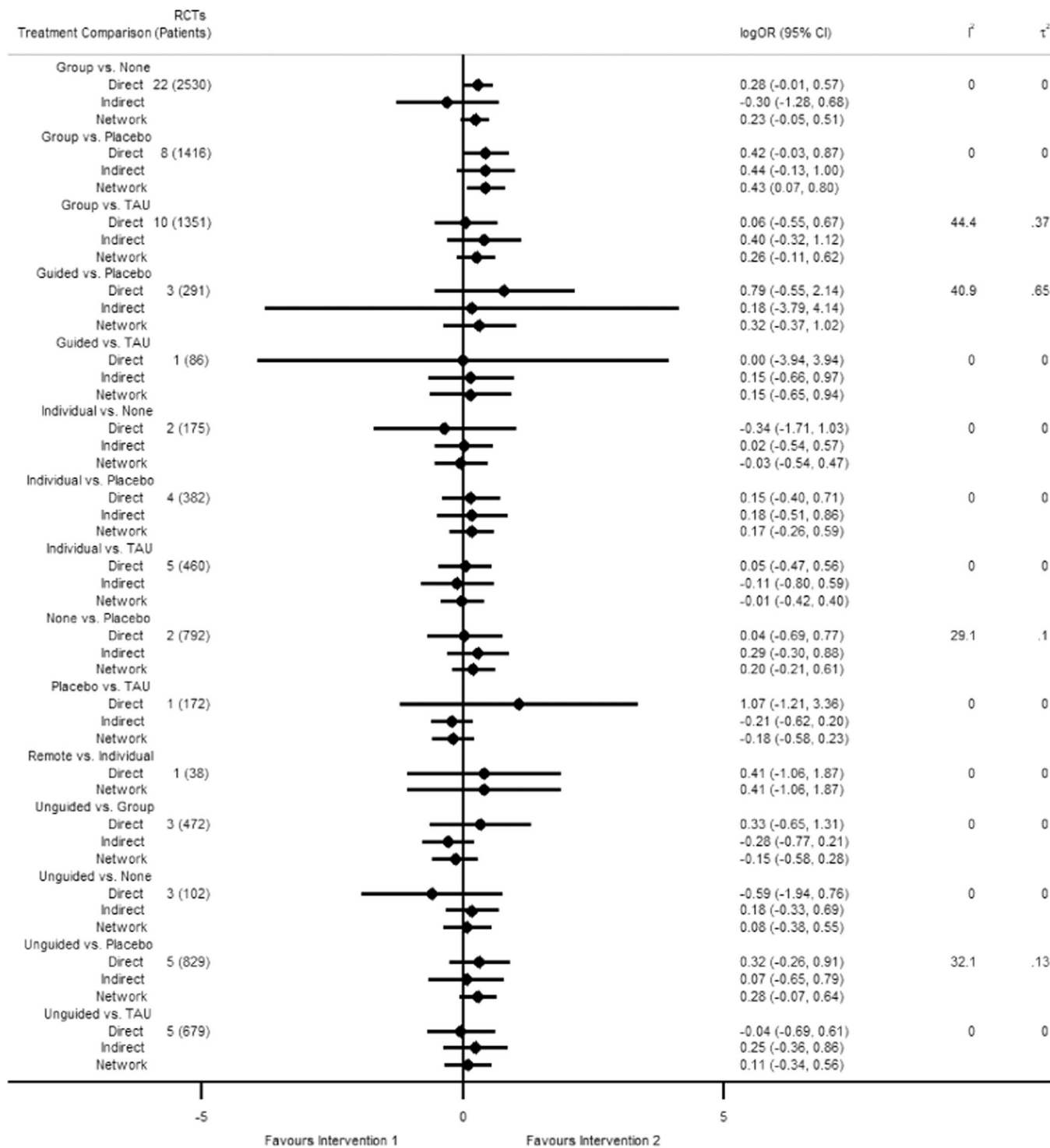
### 7.4 | Potential biases in the review process

The assignment of trial arms to network nodes has a degree of subjectivity and the authors did not always agree on node assignments. Different teams of authors therefore may have come to different decisions about node assignments for this review, which could introduce a bias.

There was some indication of publication bias, which may mean that the effects of the active treatments are inflated when compared to inactive controls. However, it is not clear that this implies that the relative effectiveness between any of the active treatments is inflated.

It was not possible to find papers for 39 studies at the full text screening stage, which could have introduced a bias, although we

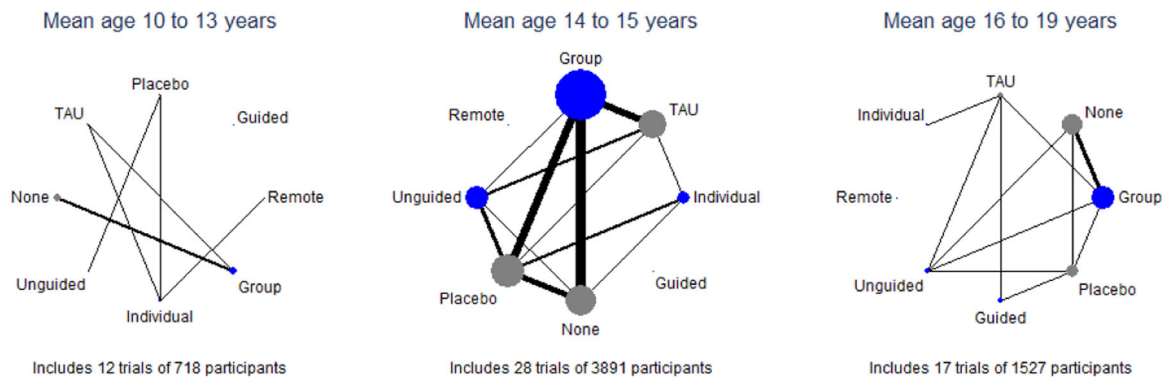




**FIGURE 19** Forest plot of direct estimates of comparative effectiveness of interventions, with corresponding indirect and network estimates, for intervention acceptability. Intervention 1 is the treatment listed to the left in the treatment comparison column, and Intervention 2 is the treatment on the right. Sample size (number of randomised controlled trials and patients) and heterogeneity measures ( $I^2$  and  $\tau^2$ ) are provided for the direct estimates.

were not able to determine from available information whether these studies would have met the inclusion criteria and have no reason to believe that they would necessarily have had results that differed from the findings of this review. Similarly, we were

unable to include the data for five included studies in the network meta-analysis. These studies indicated no significant differences in depression outcomes for comparisons of group CBT vs unguided self-help and for individual CBT versus TAU. These



**FIGURE 20** Network plot for post-test depression score by age category subgroups. Nodes are weighted by the number of patients randomised to that intervention, and edges are weighted by the number of trials comparing the two interventions. Additionally, the subgroup networks are scaled based on the proportion of data they represent from the overall network.

results are not inconsistent with the findings of this review for these comparisons. For three included studies, the standard deviations of outcome measures were not included in the papers, and we were unable to obtain them by contacting authors, so these were imputed. However, we have no reason to expect that this introduced a bias in the results.

The secondary outcome is limited in that loss to follow-up is an imperfect proxy for treatment acceptability. In particular, completion of post-test measures may not have been entirely related to engagement with treatment, particularly if incentives and other methods were used to boost response rate. Similarly, where interventions were delivered in schools, attendance to take part in the intervention and for measure completion would have been compulsory regardless of whether students found the intervention acceptable. However, this proxy facilitated quantitative comparison between studies on a consistent measure.

## 7.5 | Agreements and disagreements with other studies or reviews

In their systematic review comparing delivery formats of CBT for adult depression, Cuijpers (2019) found that there was no statistically significant difference in effectiveness between individual, group, telephone, or guided self-help formats and that all of these formats were more effective than unguided self-help as well as waiting list and care as usual control conditions. In contrast, in this review we found that all active treatments except for remote CBT were more effective than no treatment, and that the comparisons between active treatments demonstrated neither superiority nor equivalence.

López-López (2019) found the biggest effects for face-to-face CBT, with more uncertainty for the effectiveness of multimedia CBT or hybrid models of CBT, but found little evidence of differential effectiveness of face-to-face versus multimedia CBT

interventions in a components analysis. Similarly, Bennett (2019) found significant effects for guided self-help and unguided self-help on symptoms of anxiety, depression, and disruptive behaviour when compared to controls, but negative effects when compared to face-to-face therapy, although they report that the difference in effect sizes between self-help and face-to-face therapy was small and unlikely to be clinically significant. The results of this review are more nuanced, in that both face-to-face and hybrid models were found to be more highly ranked than unguided self-help at posttreatment assessment time points, with no significant differences in effectiveness, and with unguided self-help ranking higher than face-to-face therapy at 6- to 12-month follow-up.

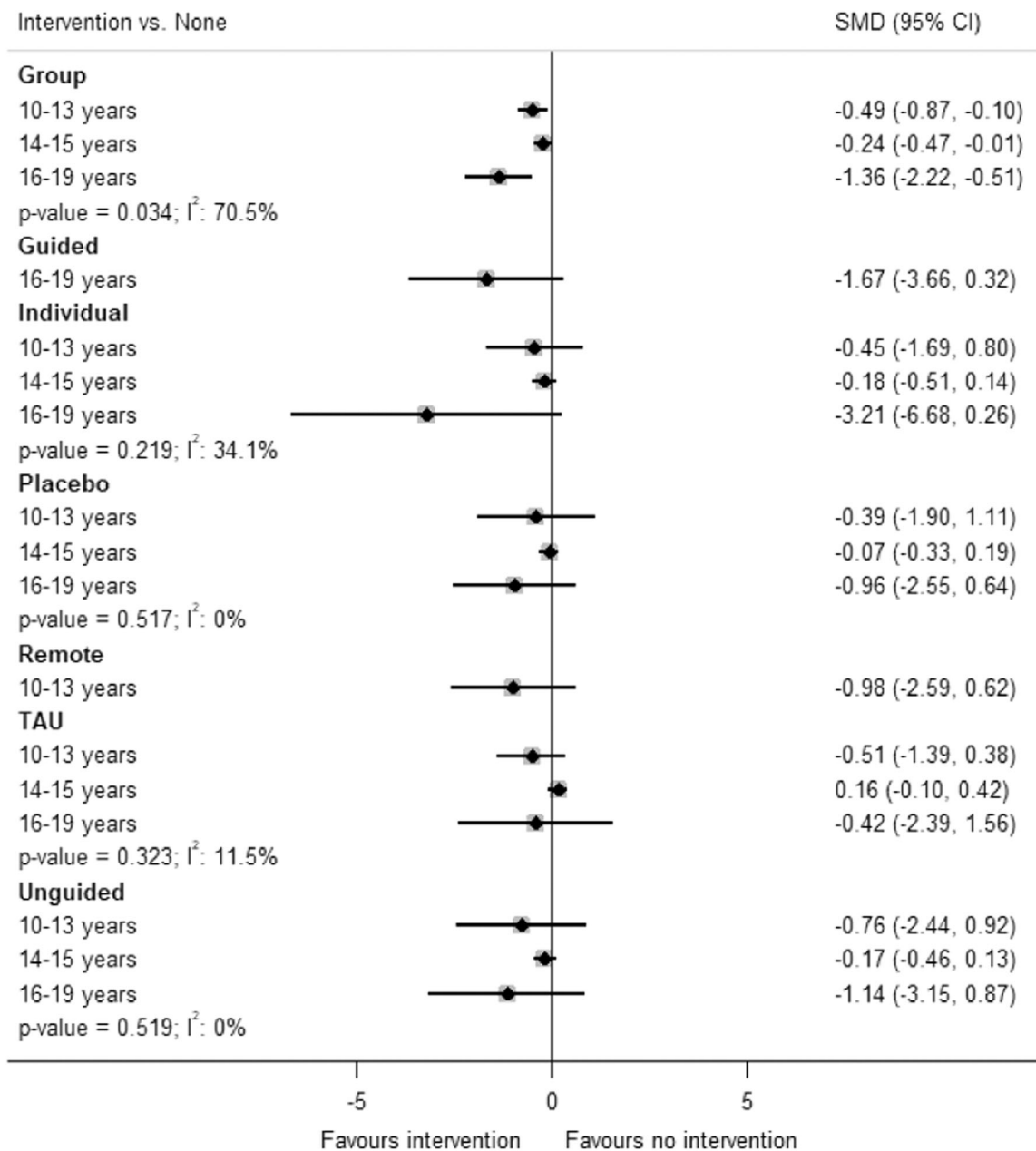
A systematic review of the acceptability to patients of computerised CBT for depression in adults found that drop-out rates were comparable to rates found for other forms of treatment in other studies (Kaltenthaler, 2008). Similarly, we found that none of the active treatment delivery models were relatively superior to any other in terms of attrition.

## 8 | AUTHORS' CONCLUSIONS

### 8.1 | Implications for practice

The findings of this review have implications for policy and practice and the future funding of mental health service provision by providing an understanding of how different CBT delivery modes compare to one another on a subpopulation of adolescents with elevated symptoms of depression.

Although guided self-help had the highest ranking at post-intervention, the included studies vary in terms of the type and amount of therapist support provided. Three of the studies examining guided self-help involved online or app-based interventions (Saranya, 2017; Topooco, 2017, 2019), while the fourth involved reading and worksheets for the self-help element



**FIGURE 21** Forest plot of the network estimates for post-test depression score for each intervention compared to no intervention by age category. *p* Values and *I*<sup>2</sup> values for subgroup differences are included.

(Araki, 2019). Therapist support in these studies took the form of individual therapy delivered via chat (Topooco, 2017), individual face-to-face therapy sessions along with messages in the app (Topooco, 2019), a single group CBT session (Araki, 2019), or brief therapist feedback and reinforcement on homework each week (Saranya, 2017). The high ranking of unguided self-help in the longer term indicates that interventions with self-directed elements may provide young people with skills or resources that they can use to maintain the effects of the intervention, although this needs further investigation.

None of the active treatments were clearly more acceptable to participants than others, using drop-out rates as a proxy for treatment acceptability.

The results of the network meta-analysis may only apply to the oldest adolescents. In particular, effectiveness of guided self-help was only found in studies of 16–19 year olds; we did not find any studies of guided self-help with children under 16 years of age.

Finally, in clinical practice, the relative effectiveness of these intervention delivery modes must be taken into account in the context of the needs and preferences of individual young people,

TABLE 7 Sensitivity analysis results for post-test depression score.

Versus None	Primary analysis (62 trials, n = 6436)	Separate placebo types (62 trials, n = 6436)	Excluding interactive interventions (52 trials, n = 5470)	Excluding cluster trials (55 trials, n = 4768)	Excluding imputed SDs (59 trials, n = 6321)
Guided	-1.29 (-2.26, -0.32)	-1.28 (-2.27, -0.29)	-0.77 (-2.68, 1.13)	-1.45 (-2.44, -0.46)	-1.40 (-2.35, -0.44)
Remote	-1.46 (-3.39, 0.48)	-1.53 (-3.50, 0.43)	-1.47 (-3.53, 0.59)	-1.65 (-3.60, 0.29)	-1.53 (-3.42, 0.37)
Group	-0.90 (-1.24, -0.56)	-0.90 (-1.25, -0.56)	-0.90 (-1.26, -0.54)	-0.95 (-1.31, -0.58)	-0.90 (-1.24, -0.55)
Individual	-0.92 (-1.60, -0.24)	-0.99 (-1.71, -0.28)	-0.93 (-1.66, -0.20)	-1.12 (-1.84, -0.40)	-0.99 (-1.66, -0.32)
Unguided	-0.71 (-1.30, -0.12)	-0.72 (-1.37, -0.07)	-0.68 (-1.54, 0.18)	-0.81 (-1.41, -0.21)	-0.79 (-1.40, -0.18)
Placebo	-0.48 (-1.00, 0.03)	-	-0.45 (-1.03, 0.13)	-0.70 (-1.26, -0.14)	-0.62 (-1.14, -0.10)
Pill placebo	-	-1.09 (-2.93, 0.74)	-	-	-
Self-help placebo	-	-0.55 (-1.45, 0.35)	-	-	-
Therapist-led placebo	-	-0.47 (-1.03, 0.09)	-	-	-
TAU	-0.32 (-0.86, 0.23)	-0.33 (-0.88, 0.23)	-0.39 (-1.01, 0.23)	-0.35 (-0.95, 0.25)	-0.35 (-0.90, 0.19)

Note: Values represent standardised mean differences (95% confidence intervals).

Abbreviations: CBT, cognitive behavioural therapy; Group, group CBT; Guided, guided self-help; Individual, individual CBT; Remote, remotely-delivered CBT; SD, standard deviation; TAU, treatment-as-usual; Unguided, unguided self-help.

particularly as the differences between effect sizes were relatively small.

## 8.2 | Implications for research

As guided self-help was not directly evaluated against any of the other active treatments in this review, the results are based on indirect evidence only. Given that guided self-help appeared to be the highest ranked intervention, at least in the short term, direct comparisons would provide further insight into not only the relative effectiveness of guided self-help compared to other delivery formats, but also acceptability and cost-effectiveness.

Further research into the type and amount of therapist support that is most acceptable to young people and most cost-effective would be particularly useful. Two recent scoping reviews found that involvement of young people in research to develop preventative digital mental health interventions for children and young people, or in child health research more generally, has not been frequently reported (Bergin, 2020; Sellars, 2021). Involvement of young people in future intervention development research may increase the acceptability of different modes of delivery and may increase the chances of developing effective interventions in different formats for a wider range of ages.

Remote delivery is particularly relevant in the context of the COVID-19 pandemic. However, this review was only able to include one study of remote delivery of CBT. Results from trials of this delivery format are needed to help commissioners and practitioners understand whether this is an effective alternative to face-to-face therapy.

Furthermore, trials evaluating guided self-help and remote CBT did not collect longer-term follow-up data. Results over the long term are needed to determine whether effects persist over time for CBT when delivered using these formats. The high ranking of unguided self-help at 6- to 12-month follow-up has important implications for further research into whether interventions with self-directed elements enable young people to maintain effects by continuing or revisiting the intervention independently, and whether therapist support would improve long-term outcomes.

Delivery modalities will differ in terms of demands on resources. This review may therefore have important cost-benefit implications, which could be examined in further research (Arnberg, 2014).

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### CONTRIBUTIONS OF AUTHORS

GB and SS provided the content of the review that is pertinent to adolescent depression and interventions delivered via technology with support and guidance from NA.

GB, BR, and SS designed the methodology for the review, with suggestions and input from NA.

BR planned and performed the statistical analyses.

Screening was conducted by SS, LF, GB, and NA. Data extraction, assessment of risk of bias, and study coding for network nodes were conducted by SS, NH, and JHD, with discussion with GB.

All authors reviewed and approved the final version of the review.

### DECLARATIONS OF INTEREST

BR has recently contributed to a systematic review of interventions for major depressive disorder in adults, including cognitive behavioural therapy, to inform the development of a clinical practice guideline for the US Department of Veterans Affairs. None of the other authors have been involved in the development of any relevant interventions or primary research, and nor have they published a prior review on the topic.

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#### External sources

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### DIFFERENCES BETWEEN PROTOCOL AND REVIEW

Real time remote delivery was accidentally included under face-to-face CBT and remote delivery in the description of treatment nodes in the protocol. This was corrected in the review.

In the protocol, we had planned to use Screen4Me to assist with screening, but did not opt to use it when screening studies for inclusion in this review.

We planned to conduct sensitivity analyses to test whether differences in intervention components confound the estimated differences between delivery modes, but were unable to do this as the descriptions of the interventions in most studies were not sufficient to identify these types of differences. We also planned to conduct a sensitivity analyses excluding studies where symptoms of depression were established using an unvalidated measure or unclear method, but all included studies measured depression at baseline using at least one validated measure.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

### ORCID

Gretchen Bjornstad  <http://orcid.org/0000-0003-4456-787X>

Benjamin Rouse  <http://orcid.org/0000-0002-4052-5667>

### PEER REVIEW

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/cl2.1376>.

### REFERENCES

#### REFERENCES TO STUDIES INCLUDED IN THIS REVIEW

##### Ackerson 1998 {published data only}

\*Ackerson, J., Scogin, F., McKendree-Smith, N., & Lyman, R. D. (1998). Cognitive bibliotherapy for mild and moderate adolescent depressive symptomatology. *Journal of Consulting and Clinical Psychology*, 66(4), 685–690.

##### Alavi 2013 {published data only}

\*Alavi, A., Sharifi, B., Ghanizadeh, A., & Dehbozorgi, G. (2013). Effectiveness of cognitive-behavioral therapy in decreasing suicidal ideation and hopelessness of the adolescents with previous suicidal attempts. *Iranian Journal of Pediatrics*, 23(4), 467–472.

##### Araki 2019 {published data only}

\*Araki, H., Oshima, Y., Iida, D., & Tanaka, K. (2019). Effects of brief depression prevention program based on Cognitive Behavior

Therapy among college students: A randomized controlled trial. *The Kitasato Medical Journal*, 49, 26–34.

#### Bella-Awusah 2016 {published data only}

\*Bella-Awusah, T., Ani, C., Ajuwon, A., & Omigbodun, O. (2016). Effectiveness of brief school-based, group cognitive behavioural therapy for depressed adolescents in south west Nigeria. *Child and Adolescent Mental Health*, 21(1), 44–50.

#### Brent 1997 {published data only}

Birmaher, B., Brent, D. A., Kolko, D., Baugher, M., Bridge, J., Holder, D., Iyengar, S., & Ulloa, R. E. (2000). Clinical outcomes after short-term psychotherapy for adolescents with major depressive disorder. *Archives of General Psychiatry*, 57(1), 29–36.

\*Brent, D. A., Holder, D., Kolko, D., Birmaher, B., Baugher, M., Roth, C., Iyengar, S., & Johnson, B. A. (1997). A clinical psychotherapy trial for adolescent depression comparing cognitive, family, and supportive therapy. *Archives of General Psychiatry*, 54(9), 877–885.

#### Briere 2019 {published data only}

\*Briere, F. N., Reigner, A., Yale-Souliere, G., & Turgeon, L. (2019). Effectiveness trial of brief indicated cognitive-behavioral group depression prevention in French-Canadian secondary schools. *School Mental Health*, 11(4), 728–740.

#### Charkhandeh 2016 {published data only}

\*Charkhandeh, M., Talib, M. A., & Hunt, C. J. (2016). The clinical effectiveness of cognitive behavior therapy and an alternative medicine approach in reducing symptoms of depression in adolescents. *Psychiatry Research*, 239, 325–330.

#### Clarke 1995 {published data only}

\*Clarke, G. N., Hawkins, W., Murphy, M., Sheeber, L. B., Lewinsohn, P. M., & Seeley, J. R. (1995). Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: A randomized trial of a group cognitive intervention. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34(3), 312–321.

#### Clarke 1999 {published data only}

\*Clarke, G. N., Rohde, P., Lewinsohn, P. M., Hops, H., & Seeley, J. R. (1999). Cognitive-behavioral treatment of adolescent depression: Efficacy of acute group treatment and booster sessions. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(3), 272–279.

#### Clarke 2001 {published data only}

\*Clarke, G. N., Hornbrook, M., Lynch, F., Polen, M., Gale, J., Beardslee, W., O'Connor, E., & Seeley, J. (2001). A randomized trial of a group cognitive intervention for preventing depression in adolescent offspring of depressed parents. *Archives of General Psychiatry*, 58(12), 1127–1134.

#### Clarke 2002 {published data only}

\*Clarke, G. N., Hornbrook, M., Lynch, F., Polen, M., Gale, J., O'Connor, E., Seeley, J. R., & Debar, L. (2002). Group cognitive-behavioral treatment for depressed adolescent offspring of depressed parents in a health maintenance organization. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(3), 305–313.

#### Clarke 2016 {published data only}

\*Clarke, G., DeBar, L. L., Pearson, J. A., Dickerson, J. F., Lynch, F. L., Gullion, C. M., & Leo, M. C. (2016). Cognitive behavioral therapy in primary care for youth declining antidepressants: A randomized trial. *Pediatrics*, 137(5), e20151851.

NCT00523081. Study of Adolescence and Depression (STAND). Retrieved 30 August 2007. <https://clinicaltrials.gov/ct2/show/NCT00523081>

#### Congleton 1996 {published data only}

\*Congleton, A. B. (1996). *The effect of a cognitive-behavioral group intervention on the locus of control, attributional style, and depressive symptoms of middle school students [Doctoral thesis]*. Vol. 56. University of Kentucky.

#### Cui 2016 {published data only}

\*Cui, L., He, F., Han, Z., Yang, R., Xiao, J., & Oei, T. P. (2016). A brief group cognitive-behavioral program for the prevention of depressive symptoms in Chinese college students. *International Journal of Group Psychotherapy*, 66(2), 291–307.

#### Curtis 1993 {published data only}

\*Curtis, S. E. (1993). *Cognitive-behavioral treatment of adolescent depression: Effects on multiple parameters [Doctoral thesis]*. Utah State University.

#### De Cuyper 2004 {published data only}

\*De Cuyper, S., Timbremont, B., Braet, C., De Backer, V., & Wullaert, T. (2004). Treating depressive symptoms in schoolchildren: A pilot study. *European Child and Adolescent Psychiatry*, 13(2), 105–114.

#### Dobson 2010 {published data only}

\*Dobson, K. S., Hopkins, J. A., Fata, L., Scherrer, M., & Allan, L. C. (2010). The prevention of depression and anxiety in a sample of high-risk adolescents: A randomized controlled trial. *Canadian Journal of School Psychology*, 25(4), 291–310.

#### Ede 2019 {published data only}

\*Ede, M. O., Igbo, J. N., Eseadi, C., Ede, K. R., Ezegebe, B. N., Ede, A. O., Ezurike, C., Onwuka, G. T., & Ali, R. B. (2019). Effect of group cognitive behavioural therapy on depressive symptoms in a sample of college adolescents in Nigeria. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 38, 306–318.

UMIN000034163. Effect of group cognitive behavioral therapy on depressive symptoms in a sample of college adolescents in Nigeria. Retrieved 15 September 2018. [https://center6.umin.ac.jp/cgi-open-bin/icdr\\_e/ctr\\_view.cgi?recptno=R000038949](https://center6.umin.ac.jp/cgi-open-bin/icdr_e/ctr_view.cgi?recptno=R000038949)

#### Ettelson 2003 {published data only}

\*Ettelson, R. G. (2003). *The treatment of adolescent depression [Doctoral thesis]*. Illinois State University.

#### Fischer 1996 {published data only}

\*Fischer, S. A. (1996). *Development and evaluation of group cognitive-behavioral therapy for depressed and suicidal adolescents in juvenile detention [Doctoral thesis]*. University of Oregon.

#### Fleming 2012 {published data only}

\*Fleming, T., Dixon, R., Frampton, C., & Merry, S. (2012). A pragmatic randomized controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education. *Behavioural and Cognitive Psychotherapy*, 40(5), 529–541.

#### Gaete 2016 {published data only}

\*Gaete, J., Martinez, V., Fritsch, R., Rojas, G., Montgomery, A. A., & Araya, R. (2016). Indicated school-based intervention to improve depressive symptoms among at risk Chilean adolescents: A randomized controlled trial. *BMC Psychiatry*, 16, 276.

#### Garber 2009 {published data only}

Beardslee, W. R., Brent, D. A., Weersing, V. R., Clarke, G. N., Porta, G., Hollon, S. D., Gladstone, T. R. G., Gallop, R., Lynch, F. L., Iyengar, S., DeBar, L., & Garber, J. (2013). Prevention of depression in at-risk adolescents: Longer-term effects. *JAMA Psychiatry*, 70(11), 1161–1170.

\*Garber, J., Clarke, G. N., Weersing, V. R., Beardslee, W. R., Brent, D. A., Gladstone, T. R. G., DeBar, L. L., Lynch, F. L., D'Angelo, E., Hollon, S. D., Shamseddeen, W., & Iyengar, S. (2009). Prevention of depression in at-risk adolescents: A randomized controlled trial. *JAMA*, 301(21), 2215–2224.

NCT00073671. Prevention of depression in at-risk adolescents. Retrieved 3 December 2003. <https://clinicaltrials.gov/ct2/show/nct00073671>

#### Hamamci 2006 {published data only}

\*Hamamci, Z. (2006). Integrating psychodrama and cognitive behavioral therapy to treat moderate depression. *The Arts in Psychotherapy*, 33(3), 199–207.

#### Idsoe 2019 {published data only}

\*Idsoe, T., Keles, S., Olseth, A. R., & Ogden, T. (2019). Cognitive behavioral treatment for depressed adolescents: Results from a cluster randomized controlled trial of a group course. *BMC Psychiatry*, 19(1), 155.

Idsoe, T., & Keles, S. (2016). Study protocol for a randomized controlled trial of a group cognitive-behavioral course for depressed adolescents. *BMC Psychiatry*, 16, 246.

Keles, S., & Idsoe, T. (2021). Six- and twelve-month follow-up results of a cluster randomized controlled trial of a CBT-based group course. *Prevention Science*, 22, 409–418.

#### Ip 2016 {published data only}

\*Ip, P., Chim, D., Ling, C. K., Li, T. M. H., Ka, W. H. F., Van Voorhees, B. W., Tiwari, A., Tsang, A., Wai, L. C. C., Ho, M., Tso, W., & Hing, S. W. W. (2016). Effectiveness of a culturally attuned Internet-based depression prevention program for Chinese adolescents: A randomized controlled trial. *Depression and Anxiety*, 33, 1123–1131.

#### Kaesornsamut 2012 {published data only}

\*Kaesornsamut, P., Sitthimongkol, Y., Williams, R. A., Sangon, S., Rohitsuk, W., & Vorapongsathron, T. (2012). Effectiveness of the BAND intervention program on Thai adolescents' sense of belonging, negative thinking and depressive symptoms. *Pacific Rim International Journal of Nursing Research*, 16(1), 29–47.

#### Kahn 1988 {published data only}

\*Kahn, J. S. (1988). *Assessment and treatment of depression among early adolescents [Doctoral thesis]*. The University of Utah.

#### Kerfoot 2004 {published data only}

\*Kerfoot, M., Harrington, R., Harrington, V., Rogers, J., & Verduyn, C. (2004). A step too far? Randomized trial of cognitive-behaviour therapy delivered by social workers to depressed adolescents. *European Child and Adolescent Psychiatry*, 13(2), 92–99.

#### Kobak 2015 {published data only}

Kobak, K. A., Mundt, J. C., & Kennard, B. (2016). Integrating technology into cognitive behavior therapy for adolescent depression: A pilot study. *Annals of General Psychiatry*, 15, 2.

\*Kobak, K. A., Mundt, J. C., & Kennard, B. (2015). Integrating technology into cognitive behavior therapy for adolescent depression: A pilot study. *Annals of General Psychiatry*, 14, 37–46.

#### Lamb 1998 {published data only}

\*Lamb, J. M., Puskar, K. R., Sereika, S. M., & Corcoran, M. (1998). School-based intervention to promote coping in rural teens. *MCN: The American Journal of Maternal Child Nursing*, 23(4), 187–194.

#### Lewinsohn 1990 {published data only}

\*Lewinsohn, P. M., Clarke, G. N., Hops, H., & Andrews, J. (1990). Cognitive-behavioral treatment for depressed adolescents. *Behavior Therapy*, 21(4), 385–401.

#### Listug-Lunde Lori 2004 {published data only}

\*Listug-Lunde Lori, B. (2004). *A cognitive-behavioral treatment for depression in Native American middle-school students [Doctoral thesis]*. The University of North Dakota.

**Makarushka 2012 {published data only}**

\*Makarushka, M. M. (2012). *Efficacy of an Internet-based intervention targeted to adolescents with subthreshold depression [Doctoral thesis]*. University of Oregon.

**March 2004 {published data only}**

Kennard, B., Silva, S., Vitiello, B., Curry, J., Kratochvil, C., Simons, A., Hughes, J., Feeny, N., Weller, E., Sweeney, M., Reinecke, M., Pathak, S., Ginsburg, G., Emslie, G., & March, J. (2006). Remission and residual symptoms after short-term treatment in the Treatment of Adolescents with Depression Study (TADS). *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(12), 1404–1411.

\*March, J., Silva, S., Petrycki, S., Curry, J., Wells, K., Fairbank, J., Burns, B., Domino, M., McNulty, S., Vitiello, B., & Severe, J. (2004). Fluoxetine, cognitive-behavioral therapy, and their combination for adolescents with depression: Treatment for Adolescents With Depression Study (TADS) randomized controlled trial. *JAMA*, 292(7), 807–820.

**Marcotte 1993 {published data only}**

\*Marcotte, D., & Baron, P. (1993). L'efficacité d'une stratégie d'intervention emotivo-rationnelle auprès d'adolescents dépressifs du milieu scolaire [The efficacy of a school-based rational-emotive intervention strategy with depressive adolescents]. *Canadian Journal of Counselling*, 27(2), 77–92.

**McLaughlin 2011 {published data only}**

\*McLaughlin, C. L. (2011). *Evaluating the effect of an empirically-supported group intervention for students at-risk for depression in a rural school district [Doctoral thesis]*. Kent State University.

**Merry 2012 {published data only}**

\*Merry, S. N., Stasiak, K., Shepherd, M., Frampton, C., Fleming, T., & Lucassen, M. F. G. (2012). The effectiveness of SPARX, a computerised self help intervention for adolescents seeking help for depression: Randomised controlled non-inferiority trial. *BMJ*, 344, e2598.

**Moldenhauer 2004 {published data only}**

\*Moldenhauer, Z. (2004). *Adolescent depression: A primary care pilot intervention study [Doctoral thesis]*. University of Rochester.

**Nelson 2003 {published data only}**

\*Nelson, E. L., Barnard, M., & Cain, S. (2003). Treating childhood depression over videoconferencing. *Telemedicine Journal and E-Health*, 9(1), 49–55.

Nelson, E. L. (2004). *Cognitive behavioral therapy for childhood depression: A comparison of face-to-face and interactive televideo settings [Doctoral thesis]*. University of Kansas.

**Parks 2013 {published data only}**

\*Parks, A. C., & Szanto, R. K. (2013). Assessing the efficacy and effectiveness of a positive psychology-based self-help book. *Terapia Psicológica*, 31(1), 141–148.

**Phillips 2005 {published data only}**

\*Phillips, J. H. (2005). *An evaluation of school-based cognitive-behavioral social skills training groups with adolescents at risk for depression*. The University of Texas at Arlington.

**Rajabi 2018 {published data only}**

\*Rajabi, G., Shamoni, A. S., & Amanollahi, A. (2018). The effect of group cognitive-behavior therapy on depression symptoms decrease in adolescence girls. *Journal of Educational Psychology Studies*, 15(29), 125–148.

**Reynolds 1986 {published data only}**

\*Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology*, 54(5), 653.

**Rohde 2004 {published data only}**

NCT00904891. Testing the effectiveness of adolescent depression prevention programs (The OregonBlues Study). Retrieved 20 May 2009. <https://clinicaltrials.gov/ct2/show/NCT00904891>

\*Rohde, P., Clarke, G. N., Mace, D. E., Jorgensen, J. S., & Seeley, J. R. (2004). An efficacy/effectiveness study of cognitive-behavioral treatment for adolescents with comorbid major depression and conduct disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43(6), 660–668.

Rohde, P., Seeley, J. R., Kaufman, N. K., Clarke, G. N., & Stice, E. (2006). Predicting time to recovery among depressed adolescents treated in two psychosocial group interventions. *Journal of Consulting and Clinical Psychology*, 74(1), 80–88.

**Rohde 2014a {published data only}**

\*Rohde, P., Stice, E., Shaw, H., & Gau, J. M. (2014). Cognitive-behavioral group depression prevention compared to bibliotherapy and brochure control: Nonsignificant effects in pilot effectiveness trial with college students. *Behaviour Research and Therapy*, 55, 48–53.

**Rohde 2014b {published data only}**

\*Rohde, P., Stice, E., Shaw, H., & Brière, F. N. (2014). Indicated cognitive behavioral group depression prevention compared to bibliotherapy and brochure control: Acute effects of an effectiveness trial with adolescents. *Journal of Consulting and Clinical Psychology*, 82(1), 65–74.

Rohde, P., Stice, E., Shaw, H., & Gau, J. M. (2015). Effectiveness trial of an indicated cognitive-behavioral group adolescent depression prevention program versus bibliotherapy and brochure control at 1- and 2-year follow-up. *Journal of Consulting and Clinical Psychology*, 83(4), 736–747.

**Rossello 1999 {published data only}**

\*Rossello, J., & Bernal, G. (1999). The efficacy of cognitive-behavioral and interpersonal treatments for depression in Puerto Rican adolescents. *Journal of Consulting and Clinical Psychology*, 67(5), 734–745.

**Sanchez-Hernandez 2016 {published data only}**

\*Sanchez-Hernandez, O., Carrillo, F. X. M., & Garber, J. (2016). Promoting resilience in children with depressive symptoms. *Anales de Psicología*, 32(3), 741–748.



**Saranya 2017 {published data only}**

\*Saranya, W., Darawan, T., Hunsu, S., Petsunee, T., & Surinporn, L. (2017). Randomized controlled trial of computerized cognitive behavioral therapy program for adolescent offenders with depression. *Pacific Rim International Journal of Nursing Research*, 21(1), 32–43.

**Saw 2019 {published data only}**

\*Saw, J. A., Tam, C. L., & Bonn, G. (2019). Development and validation of a school-based cognitive-behavioural therapy (CBT) intervention for Malaysian high school students with depressive symptoms. *Asia Pacific Journal of Counselling and Psychotherapy*, 10(2), 171–187.

**Saw 2020 {published data only}**

\*Saw, J. A., Tam, C. L., Thanzami, V., & Bonn, G. (2020). Contextualised school-based cognitive behavioral therapy (CBT) intervention for depressive symptomatology among Malaysian secondary school students. *Frontiers in Psychiatry*, 11, 1376.

**Sheffield 2006 {published data only}**

\*Sheffield, J. K., Spence, S. H., Rapee, R. M., Kowalenko, N., Wignall, A., Davis, A., & McLoone, J. (2006). Evaluation of universal, indicated, and combined cognitive-behavioral approaches to the prevention of depression among adolescents. *Journal of Consulting and Clinical Psychology*, 74(1), 66–79.

**Singhal 2018 {published data only}**

\*Singhal, M., Munivenkatappa, M., Kommu, J. V. S., & Philip, M. (2018). Efficacy of an indicated intervention program for Indian adolescents with subclinical depression. *Asian Journal of Psychiatry*, 33, 99–104.

**Srivastava 2015 {published data only}**

Srivastava, P., Mehta, M., Sagar, R., & Ambekar, A. (2015). Computer assisted cognitive behavior therapy for adolescents with depression—a pilot study. In 23rd European Congress of Psychiatry, EPA; 2015 May 28–31; Vienna (Austria).

\*Srivastava, P., Mehta, M., Sagar, R., & Ambekar, A. (2020). Smartteen – A computer assisted cognitive behavior therapy for Indian adolescents with depression – A pilot study. *Asian Journal of Psychiatry*, 50, 101970.

**Stallard 2012 {published data only}**

Stallard, P., Phillips, R., Montgomery, A. A., Spears, M., Anderson, R., Taylor, J., Araya, R., Lewis, G., Ukoumunne, O. C., & Millings, A. (2013). A cluster randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of classroom-based cognitive-behavioural therapy (CBT) in reducing symptoms of depression in high-risk adolescents. *Health Technology Assessment*, 17(47), 1–109.

\*Stallard, P., Sayal, K., Phillips, R., Taylor, J. A., Spears, M., Anderson, R., Araya, R., Lewis, G., Millings, A., & Montgomery, A. A. (2012). Classroom based cognitive behavioural therapy in reducing symptoms of depression in high risk adolescents: Pragmatic cluster randomised controlled trial. *BMJ*, 345, e6058.

**Stasiak 2014 {published data only}**

\*Stasiak, K., Hatcher, S., Frampton, C., & Merry, S. N. (2014). A pilot double blind randomized placebo controlled trial of a prototype computer-based cognitive behavioural therapy program for adolescents with symptoms of depression. *Behavioural and Cognitive Psychotherapy*, 42(4), 385–401.

**Stice 2007 {published data only}**

\*Stice, E., Burton, E., Bearman, S. K., & Rohde, P. (2007). Randomized trial of a brief depression prevention program: An elusive search for a psychosocial placebo control condition. *Behaviour Research and Therapy*, 45(5), 863–876.

**Stice 2008 {published data only}**

Stice, E., Rohde, P., Gau, J. M., & Wade, E. (2010). Efficacy trial of a brief cognitive-behavioral depression prevention program for high-risk adolescents: Effects at 1- and 2-year follow-up. *Journal of Consulting and Clinical Psychology*, 78(6), 856–867.

Stice, E., Rohde, P., Seeley, J. R., & Gau, J. M. (2010). Testing mediators of intervention effects in randomized controlled trials: An evaluation of three depression prevention programs. *Journal of Consulting and Clinical Psychology*, 78(2), 273–280.

\*Stice, E., Rohde, P., Seeley, J. R., & Gau, J. M. (2008). Brief cognitive-behavioral depression prevention program for high-risk adolescents outperforms two alternative interventions: A randomized efficacy trial. *Journal of Consulting and Clinical Psychology*, 76(4), 595–606.

**Stikkelbroek 2020 {published data only}**

Stikkelbroek, Y., & Bodden, D. (2020). Effectiveness of cognitive behavioural therapy (CBT), in clinically depressed adolescents versus treatment as usual (TAU). In 16th International Congress of European Society for Child and Adolescent Psychiatry (ESCAP); 2015 June 20–24; Madrid, Spain.

\*Stikkelbroek, Y., Vink, G., Nauta, M. H., Bottelier, M. A., Vet, L. J. J., Lont, C. M., van Baar, A. L., & Bodden, D. H. M. (2020). Effectiveness and moderators of individual cognitive behavioral therapy versus treatment as usual in clinically depressed adolescents: A randomized controlled trial. *Scientific Reports*, 10(1), 14815.

**Topooco 2017 {published data only}**

NCT02363205. Internet-delivered cognitive behaviour therapy for adolescent depression. Retrieved 13 February 2015. <https://clinicaltrials.gov/ct2/show/NCT02363205>

Topooco, N., Byléhn, S., Dahlström Nysäter, E., Holmlund, J., Lindegaard, J., Johansson, S., Åberg, L., Bergman Nordgren, L., Zetterqvist, M., & Andersson, G. (2019). Evaluating the efficacy of internet-delivered cognitive behavioral therapy blended with synchronous chat sessions to treat adolescent depression: Randomized controlled trial. *Journal of Medical Internet Research*, 21(11), e13393.

\*Topooco, N. W., & Andersson, G. (2017). Digital cognitive-behavioral therapy in the treatment of adolescent depression: A randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(10), S299–S300.

Topooco, N., & Gerhard, A. (2017). 6.66 digital cognitive-behavioral therapy in the treatment of adolescent depression: A randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56, S299–S300.

**Topooco 2019 {published data only}**

\*Topooco, N., & Andersson, G. (2019). Treating adolescent depression: Development and results for a chat- and internet-based CBT intervention targeting youth in a community setting. *Bipolar Disorders*, 21(Supplment 1), 54.

Topooco, N., Berg, M., Johansson, S., Liljethörn, L., Radvogin, E., Vlaescu, G., Bergman Nordgren, L., Zetterqvist, M., & Andersson, G. (2018). Chat-and internet-based cognitive-behavioural therapy in treatment of adolescent depression: Randomised controlled trial. *BJPsych Open*, 4, 199–207.

Topooco, N. (2018). *Blended cognitive behavior therapy: Efficacy and acceptability for treating depression in the adult and adolescent population [Doctoral thesis]*. Linköping University.

**Vostanis 1996 {published data only}**

Vostanis, P., Feehan, C., Grattan, E., & Bickerton, W. L. (1996). A randomised controlled out-patient trial of cognitive-behavioural treatment for children and adolescents with depression: 9-month follow-up. *Journal of Affective Disorders*, 40(1), 105–116.

\*Vostanis, P., Feehan, C., Grattan, E., & Bickerton, W. L. (1996). Treatment for children and adolescents with depression: Lessons from a controlled trial. *Clinical Child Psychology and Psychiatry*, 1(2), 199–212.

Vostanis, P., Feehan, C., & Grattan, E. (1998). Two-year outcome of children treated for depression. *European Child & Adolescent Psychiatry*, 7(1), 12–18.

**Vuthiarpa 2012 {published data only}**

\*Vuthiarpa, S., Sethabouppha, H., Soivong, P., & Williams, R. (2012). Effectiveness of a school-based cognitive behavioral therapy program for Thai adolescents with depressive symptoms. *Pacific Rim International Journal of Nursing Research*, 16(3), 206–221.

**Wijnhoven 2014 {published data only}**

\*Wijnhoven, L. A. M. W., Creemers, D. H. M., Vermulst, A. A., Scholte, R. H. J., & Engels, R. C. M. E. (2014). Randomized controlled trial testing the effectiveness of a depression prevention program ('Op Volle Kracht') among adolescent girls with elevated depressive symptoms. *Journal of Abnormal Child Psychology*, 42(2), 217–228.

**Woods 2011 {published data only}**

\*Woods, B., & Jose, P. E. (2011). Effectiveness of a school-based indicated early intervention program for Maori and Pacific adolescents. *Journal of Pacific Rim Psychology*, 5(1), 40–50.

**Wright 2019 {published data only}**

NCT02186730. Computerised intervention/treatment for adolescent depression and low mood: Feasibility phase 2. Retrieved 10 July 2014. <https://clinicaltrials.gov/ct2/show/NCT02186730>

\*Wright, B., Tindall, L., Hargate, R., Allgar, V., Trepel, D., & Ali, S. (2019). Computerised cognitive-behavioural therapy for depression in adolescents: 12-month outcomes of a UK randomised controlled trial pilot study. *BJPsych Open*, 6(1), e5.

Wright, B., Tindall, L., Littlewood, E., Adamson, J., Allgar, V., Bennett, S., Gilbody, S., Verduyn, C., Alderson-Day, B., Dyson, L., Trepel, D., & Ali, S. (2014). Computerised cognitive behaviour therapy for depression in adolescents: Study protocol for a feasibility randomised controlled trial. *BMJ Open*, 4, e006488.

Wright, B., Tindall, L., Littlewood, E., Allgar, V., Abeles, P., Trepel, D., & Ali, S. (2017). Computerised cognitive-behavioural therapy for depression in adolescents: Feasibility results and 4-month outcomes of a UK randomised controlled trial. *BMJ Open*, 7(1), e012834.

**Yu 2000 {published data only}**

\*Yu, L. (2000). *Preventing depressive symptoms in Chinese children [Doctoral thesis]*. University of Pennsylvania.

**REFERENCES TO STUDIES EXCLUDED FROM THIS REVIEW****Aboustate 2019 {published data only}**

\*Aboustate, N., Raven, M., Klau, J., & Jureidini, J. (2019). Reanalysis of the treatment for adolescents with depression study (TADS) under the restoring invisible and abandoned trials initiative (RIAT). *BMJ Evidence-Based Medicine*, 24, A20–A21.

**Ackerson 1993 {published data only}**

\*Ackerson, J. D. (1993). The effects of cognitive bibliotherapy on adolescent depression: Treatment outcome and predictors of success. *ProQuest Dissertations and Theses*, 139, 1993.

**ACTRN1261000074099 {published data only}**

\*ACTRN1261000074099. An evaluation of a computerised cognitive behavioural therapy programme for depression among young people who are outside of mainstream education [The effect of a computerised Cognitive Behavioural Therapy programme on depressive symptoms in young people who have mild to moderate depression and are outside of mainstream education]. Retrieved 14 December 2009. <https://anzctr.org.au/Trial/Registration/TrialReview.aspx?id=320642&isReview=true>

**ACTRN12616001626459 {unpublished data only}**

\*ACTRN12616001626459. MindExpressTM: Trial of a depression prevention program for young people vulnerable to depressive disorders [MindExpressTM: A randomised control trial of a tailored depression prevention resilience-building mentoring App for young people vulnerable to depressive disorders]. Retrieved 22 November 2016. <https://anzctr.org.au/ACTRN12616001626459.aspx>

**Afuwape 2010 {published data only}**

\*Afuwape, S. A., Craig, T. K. J., Harris, T., Clarke, M., Flood, A., Olajide, D., Cole, E., Leese, M., McCrone, P., & Thornicroft, G. (2010). The Cares of Life Project (CoLP): An exploratory randomised controlled trial of a community-based intervention for black people with common mental disorder. *Journal of Affective Disorders*, 127(1–3), 370–374. <https://doi.org/10.1016/j.jad.2010.05.017>

**Afuwape 2019 {published data only}**

\*Aitken, M., Haltigan, J. D., Szatmari, P., & Goodyer, I. (2019). 23.1 changes in general and specific psychopathology factors during psychosocial treatment for depression in adolescent. *Journal of the American Academy of Child and Adolescent Psychiatry*, 58, S333–S334. <https://doi.org/10.1016/j.jaac.2019.07.788>

**Alavi 2016 {published data only}**

\*Alavi, N., Hirji, A., Sutton, C., Naeem, F., & Online, C. B. T. (2016). Is effective in overcoming cultural and language barriers in patients with depression. *Journal of Psychiatric Practice*, 22(1), 2–8. <https://doi.org/10.1097/PRA.0000000000000119>

**Alegria 2014 {published data only}**

\*Alegria, M., Ludman, E., Kafali, N., Lapatin, S., Vila, D., Shrout, P. E., Keefe, K., Cook, B., Ault, A., Li, X., Bauer, A., Epelbaum, C., Alcantara, C., Pineda, T. I. G., Tejera, G. G., Suarez, G., Leon, K., Lessios, A. S., Ramirez, R. R., & Canino, G. (2014). Effectiveness of the Engagement and Counseling for Latinos (ECLA) intervention in low-income Latinos. *Medical Care*, 52(11), 989–997. <https://doi.org/10.1097/MLR.0000000000000232>

**Alvarez 2008 {published data only}**

\*Alvarez, L. M., Sotres, J. F. C., León, S. O., Estrella, J., & Sosa, J. J. S. (2008). Computer program in the treatment for major depression and cognitive impairment in university students. *Computers in Human Behavior*, 24, 816–826. <https://doi.org/10.1016/j.chb.2007.02.013>

**Amaya 2011 {published data only}**

\*Amaya, M. M., Reinecke, M. A., Silva, S. G., & March, J. S. (2011). Parental marital discord and treatment response in depressed adolescents. *Journal of Abnormal Child Psychology*, 39, 401–411. <https://doi.org/10.1007/s10802-010-9466-2>

**Ammerman 2012 {published data only}**

\*Ammerman, R. T., Peugh, J. L., Putnam, F. W., & Van Ginkel, J. B. (2012). Predictors of treatment response in depressed mothers receiving in-home cognitive-behavioral therapy and concurrent home visiting. *Behavior Modification*, 36(4), 462–481. <https://doi.org/10.1177/0145445512447120>

**Ammerman 2013a {published data only}**

\*Ammerman, R. T., Putnam, F. W., Altaye, M., Stevens, J., Teeters, A. R., & Van Ginkel, J. B. (2013). A clinical trial of in-home CBT for depressed mothers in home visitation. *Behavior Therapy*, 44(3), 359–372. <https://doi.org/10.1016/j.beth.2013.01.002>

**Ammerman 2013b {published data only}**

\*Ammerman, R. T., Putnam, F. W., Altaye, M., Teeters, A. R., Stevens, J., & Van Ginkel, J. B. (2013). Treatment of depressed mothers in home visiting: Impact on psychological distress and social functioning. *Child Abuse and Neglect*, 37(8), 544–554. <https://doi.org/10.1016/j.chiabu.2013.03.003>

**Ammerman 2015 {published data only}**

\*Ammerman, R. T., Altaye, M., Putnam, F. W., Teeters, A. R., Zou, Y., & Van Ginkel, J. B. (2015). Depression improvement and parenting in low income mothers in home visiting. *Archives of Women's Mental Health*, 18(3), 555–563. <https://doi.org/10.1007/s00737-014-0479-7>

**Anderson 2014 {published data only}**

\*Anderson, R., Koumounne, O. C., Sayal, K., Phillips, R., Taylor, J. A., Spears, M., Araya, R., Lewis, G., Millings, A., Montgomery, A. A., & Stallard, P. (2014). Cost-effectiveness of classroom-based cognitive behaviour therapy in reducing symptoms of depression in adolescents: A trial-based analysis. *Journal of Child Psychology and Psychiatry*, 55(12), 1390–1397. <https://doi.org/10.1111/jcpp.12248>

**Appleby 1998 {published data only}**

\*Appleby, L. (1998). A controlled study of fluoxetine and cognitive-behavioural counselling in the treatment of postnatal depression. In 9th Congress of the Association of European Psychiatrists. Copenhagen, Denmark.

**Aqabozorg 2012 {published data only}**

\*Aqabozorg, M., Banijamali, S. A., & Khosravi, Z. (2012). Assessing the effect of well-being therapy in treating depression, anxiety and increasing psychological well-being in adolescents. In Iranian Journal of Psychiatry: 5th International Congress of Iranian Association of Child and Adolescents Psychiatry. Tehran, Iran.

**Arnarson 2011 {published data only}**

\*Arnarson, E. O., & Craighead, W. E. (2011). Prevention of depression among Icelandic adolescents: A 12-month follow-up. *Behaviour Research and Therapy*, 49, 170–174. <https://doi.org/10.1016/j.brat.2010.12.008>

**Arnou 2003 {published data only}**

\*Arnou, B. A., Manber, R., Blasey, C., Klein, D. N., Blalock, J. A., Markowitz, J. C., Rothbaum, B. O., Rush, A. J., Thase, M. E., Riso, L. P., Vivian, D., McCullough, J. P., & Keller, M. B. (2003). Therapeutic reactance as a predictor of outcome in the treatment of chronic depression. *Journal of Consulting and Clinical Psychology*, 71(6), 1025–1035. <https://doi.org/10.1037/0022-006X.71.6.1025>

**Asarnow 2002 {published data only}**

\*Asarnow, J. R., Scott, C. V., & Mintz, J. (2002). A combined cognitive-behavioural family education intervention for depression in children: A treatment development study. *Cognitive Therapy and Research*, 26(2), 221–229.

**Azevedo 2017 {published data only}**

\*Azevedo da Silva, R., de Azevedo, C. T., Campos, M. T., Neumann, R. A., de Lima, B. S., Dias de Mattos, S. L., & Jansen, K. (2017). Is narrative cognitive therapy as effective as cognitive behavior therapy in the treatment for depression in young adults? *The Journal of Nervous and Mental Disease*, 205(12), 918–924.

**Barnes 2013 {published data only}**

\*Barnes, M., Sherlock, S., Thomas, L., Kessler, D., Kuyken, W., Owen-Smith, A., Lewis, G., Wiles, N., & Turner, K. (2013). No pain, no gain: Depressed clients' experiences of cognitive behavioural therapy. *The British Journal of Clinical Psychology*, 52(4), 347–364.

**Barry 2017 {published data only}**

\*Barry, M., Murphy, M., & O'Donovan, H. (2017). Assessing the effectiveness of a cognitive behavioural group coaching intervention in reducing symptoms of depression among adolescent males in a school setting. *International Coaching Psychology Review*, 12(2), 101–109.

**Bass 2006 {published data only}**

\*Bass, J., Neugebauer, R., Clougherty, K. F., Verdelli, H., Wickramaratne, P., Ndogoni, L., Speelman, L., Weissman, M., & Bolton, P. (2006). Group interpersonal psychotherapy for depression in rural Uganda: 6-month outcomes: Randomised controlled trial. *British Journal of Psychiatry*, 188(JUNE), 567–573.

**Beattie 2009 {published data only}**

\*Beattie, A., Shaw, A., Kaur, S., & Kessler, D. (2009). Primary-care patients' expectations and experiences of online cognitive behavioural therapy for depression: A qualitative study. *Health Expectations*, 12(1), 45–59.

**Bedoya 2014 {published data only}**

\*Bedoya, C. A., Traeger, L., Trinh, N. H., Chang, T. E., Brill, C. D., Hails, K., Hagan, P. N., Flaherty, K., & Yeung, A. (2014). Impact of a culturally focused psychiatric consultation on depressive symptoms among Latinos in primary care. *Psychiatric Services*, 65(10), 1256–1262.

**Beeber 2010 {published data only}**

\*Beeber, L. S., Holditch-Davis, D., Perreira, K., Schwartz, T. A., Lewis, V., Blanchard, H., Canuso, R., & Goldman, B. D. (2010). Short-term in-home intervention reduces depressive symptoms in Early Head Start Latina mothers of infants and toddlers. *Research in Nursing and Health*, 33(1), 60–76.

**Bernal 2005 {published data only}**

Bernal, G. (2005). Parent psychoeducation and cognitive behavior therapy for Latino adolescents with depression. <http://clinicaltrials.gov/show/nct00118469>

**Bernhardsdottir 2013 {published data only}**

\*Bernhardsdottir, J., Vilhjalmsdottir, R., & Champion, J. D. (2013). Evaluation of a brief cognitive behavioral group therapy for psychological distress among female Icelandic University students. *Issues in Mental Health Nursing*, 34(7), 497–504.

**Beutel 2012 {published data only}**

\*Beutel, M. E., Leuzinger-Bohleber, M., Ruger, B., Bahrke, U., Negele, A., Haselbacher, A., Fiedler, G., Keller, W., & Hautzinger, M. (2012). Psychoanalytic and cognitive-behavior therapy of chronic depression: Study protocol for a randomized controlled trial. *Trials*, 13, 117.

**Blanco 2014 {published data only}**

\*Blanco, V., Rohde, P., Vazquez, F. L., & Otero, P. (2014). Predictors of prevention failure in college students participating in two indicated depression prevention programs. *International Journal of Environmental Research and Public Health*, 11(4), 3803–3821.

**Bollenbach 1983 {published data only}**

\*Bollenbach, A. (1983). A comparison of three cognitive treatments in alleviating depression. In 63rd Annual Meeting of the Western Psychological Association, April 6–10, San Francisco, CA (Vol. 84).

**Boogar 2012 {published data only}**

\*Boogar, I. R. (2012). Effectiveness of the Teasdale Cognitive Therapy on depression reduction in guidance and high school students. [Effectiveness of the Teasdale Cognitive Therapy on depression reduction in guidance and high school students.]. *Psychological Research*, 14(2), 25–40.

**Boschloo 2019 {published data only}**

\*Boschloo, L., Cuijpers, P., Karyotaki, E., Berger, T., Moritz, S., Meyer, B., & Klein, J. P. (2019). Symptom-specific effectiveness of an Internet-based intervention in the treatment of mild to moderate depressive symptomatology: The potential of network estimation techniques. *Behavior Research and Therapy*, 122, 103440.

**Boylan 2006 {published data only}**

\*Boylan, M. B. (2006). *Psychological mindedness as a predictor of treatment outcome with depressed adolescents*. University of Pittsburgh.

**Brent 1996 {published data only}**

\*Brent, D. A., Roth, C. M., Holder, D. P., Kolko, D. J., Birmaher, B., Johnson, B. A., & Schweers, J. A. (1996). Psychosocial interventions for treating adolescent suicidal depression: A comparison of three psychosocial interventions. In E. D. Hibbs, & P. S. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 187–206). American Psychological Association. <https://doi.org/10.1037/10196-008>

**Brent 1997a {published data only}**

\*Brent, D. (1997). A clinical trial comparing three psychotherapies for adolescent depression: Differential efficacy and predictors of outcome. In WPA Thematic Conference. Jerusalem.

**Brent 1998 {published data only}**

\*Brent, D. A., Kolko, D. J., Birmaher, B., Baugher, M., Bridge, J., Roth, C., & Holder, D. (1998). Predictors of treatment efficacy in a clinical trial of three psychosocial treatments for adolescent depression. *Journal of the Academy of Child and Adolescent Psychiatry*, 37(9), 906–914.

**Brent 1999 {published data only}**

\*Brent, D. A., Kolko, D. J., Birmaher, B., Baugher, M., & Bridge, J. (1999). A clinical trial for adolescent depression: Predictors of additional treatment in the acute and follow-up phases of the trial. *Journal of the Academy of Child and Adolescent Psychiatry*, 38(3), 263–270.

**Brent 2015 {published data only}**

\*Brent, D. A., Brunwasser, S. M., Hollon, S. D., Weersing, V. R., Clarke, G. N., Dickerson, J. F., Beardslee, W. R., Gladstone, T. R. G., Porta, G., Lynch, F. L., Iyengar, S., & Garber, J. (2015). Effect of a cognitive-behavioral prevention program on depression 6 years after implementation among at-risk adolescents: A randomized clinical trial. *JAMA Psychiatry*, 72(11), 1110–1118.

Stallard, P. (2016). Long-term benefits of cognitive-behavioural prevention for adolescents at risk of depression but not if parents are depressed at the onset of the programme. *Evidence Based Mental Health*, 19(3), e20.

#### **Brière 2014 {published data only}**

\*Brière, F. N., Rohde, P., Shaw, H., & Stice, E. (2014). Moderators of two indicated cognitive-behavioral depression prevention approaches for adolescents in a school-based effectiveness trial. *Behaviour Research and Therapy*, 53(1), 55–62.

#### **Brière 2016 {published data only}**

\*Brière, F. N., Rohde, P., Stice, E., & Morizot, J. (2016). Group-based symptom trajectories in indicated prevention of adolescent depression. *Depression and Anxiety*, 33, 444–451. <https://doi.org/10.1002/da.22440>

#### **Browning 2011 {published data only}**

\*Browning, M., Grol, M., Ly, V., Goodwin, G. M., Holmes, E. A., & Harmer, C. J. (2011). Using an experimental medicine model to explore combination effects of pharmacological and cognitive interventions for depression and anxiety. *Neuropsychopharmacology*, 36(13), 2689–2697.

#### **Bruijniks 2015 {published data only}**

\*Bruijniks, S. J. E., Bosmans, J., Peeters, F., Hollon, S. D., van Oppen, P., van den Boogaard, M., Dingemans, P., Cuijpers, P., Arntz, A., Franx, G., & Huibers, M. J. H. (2015). Frequency and change mechanisms of psychotherapy among depressed patients: Study protocol for a multicenter randomized trial comparing twice-weekly versus once-weekly sessions of CBT and IPT. *BMC Psychiatry*, 15(1), 137.

#### **Brunwasser 2018 {published data only}**

\*Brunwasser, S. M., Freres, D. R., & Gillham, J. E. (2018). Youth cognitive-behavioral depression prevention: Testing theory in a randomized controlled trial. *Cognitive Therapy and Research*, 42(4), 468–482.

#### **Burns 2014 {published data only}**

\*Burns, M. N. (2014). Mobile phone and internet-based intervention for vulnerable youth. <http://clinicaltrials.gov/show/NCT02072252>

#### **Buszewicz 2010 {published data only}**

\*Buszewicz, M., Griffin, M., McMahon, E. M., Beecham, J., & King, M. (2010). Evaluation of a system of structured, pro-active care for chronic depression in primary care: A randomised controlled trial. *Evidence-Based Mental Health*, 10, 61.

#### **Butler 1980 {published data only}**

\*Butler, L. (1980). The effect of two school-based intervention programs on depressive symptoms in preadolescents. *American Educational Research Journal*, 17(1), 111–119.

#### **Cabiya 2008 {published data only}**

\*Cabiya, J. J., Padilla-Cotto, L., Gonzalez, K., Sanchez-Cestero, J., Martinez-Taboas, A., & Sayers, S. (2008). Effectiveness of a cognitive-behavioral intervention for Puerto Rican children. *Revista Interamericana de Psicología*, 42(2), 195–202.

#### **Calear 2009 {published data only}**

\*Calear, A. L., Christensen, H., Mackinnon, A., Griffiths, K. M., & O'Kearney, R. (2009). The YouthMood project: A cluster randomized controlled trial of an online cognitive behavioral program with adolescents. *Journal of Consulting and Clinical Psychology*, 77(6), 1021.

#### **Calear 2013 {published data only}**

\*Calear, A. L., Christensen, H., Mackinnon, A., & Griffiths, K. M. (2013). Adherence to the MoodGYM program: Outcomes and predictors for an adolescent school-based population. *Journal of Affective Disorders*, 147(1–3), 338–344.

#### **Calear 2018 {published data only}**

\*Calear, A. L. (2018). 24.1 Evaluation of the MoodGym and SPARX-R online depression prevention programs in schools. *Journal of the American Academy of Child and Adolescent Psychiatry*, 57(Supplement), S35.

#### **Carta 2012 {published data only}**

\*Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M., & Moro, M. F. (2012). Counseling in primary care improves depression and quality of life. *Clinical Practice and Epidemiology in Mental Health*, 8, 152–157. <https://doi.org/10.2174/1745017901208010152>

#### **Carty 2001 {published data only}**

\*Carty, J. A. (2001). An examination of the relative effectiveness of three cognitive behavioral group treatments for depression in an Australian treatment-resistant population [thesis]. *Dissertation Abstracts International*, 62(1–B), 539.

#### **Cavanagh 2006 {published data only}**

\*Cavanagh, K., Shapiro, D. A., Van Den Berg, S., Swain, S., Barkham, M., & Proudfoot, J. (2006). The effectiveness of computerized cognitive behavioural therapy in routine care. *British Journal of Clinical Psychology*, 45(4), 499–514.

#### **Cavanagh 2011 {published data only}**

\*Cavanagh, K., Seccombe, N., & Lidbetter, N. (2011). The implementation of computerized cognitive behavioural therapies in a service user-led, third sector self help clinic. *Behavioural and Cognitive Psychotherapy*, 39(4), 427–442.

#### **Chan 2015 {published data only}**

\*Chan, S. W., Lau, J. Y., & Reynolds, S. A. (2015). Is cognitive bias modification training truly beneficial for adolescents? *Journal of Child Psychology and Psychiatry*, 56(11), 1239–1248.

**Chaplin 2006 {published data only}**

\*Chaplin, T. M., Gillham, J. E., Reivich, K., Elkon, A. G., Samuels, B., Freres, D. R., Winder, B., & Seligman, M. E. (2006). Depression prevention for early adolescent girls: A pilot study of all girls versus co-ed groups. *Journal of Early Adolescence*, 26(1), 110–126.

**Chen 2015 {published data only}**

\*Chen, Y. L., Pan, A. W., Hsiung, P. C., Chung, L., Lai, J. S., Shur-Fen Gau, S., & Chen, T. J. (2015). Life adaptation skills training (LAST) for persons with depression: A randomized controlled study. *Journal of Affective Disorders*, 185, 108–114.

**Chen 2018 {published data only}**

\*Chen, C. Y. (2018). A study of group intervention on depression in urban college students. *Basic and Clinical Pharmacology and Toxicology*, 122(Supplement 2), 17–18.

**ChiCTR1900023145 {unpublished data only}**

\*ChiCTR1900023145. Evaluation of a prevention program for depression among high school adolescent in mainland china: A cluster randomized controlled trial. Retrieved 13 May 2019. <http://www.chictr.org.cn/showproj.aspx?proj=39002>

**Chirita 2006 {published data only}**

\*Chirita, V., Ilinca, M., Chirita, R., Bisca, M., & Chele, G. (2006). Virtual therapy in patients with depression. Preliminary observation. *Annual Review of CyberTherapy and Telemedicine*, 4, 181–185.

**Christensen 2004 {published data only}**

\*Christensen, H., Griffiths, K. M., & Jorm, A. F. (2004). Delivering interventions for depression by using the internet: Randomised controlled trial. *British Medical Journal*, 328(7434), 265–269.

**Christensen 2006 {published data only}**

\*Christensen, H., Leach, L. S., Barney, L., Mackinnon, A. J., & Griffiths, K. M. (2006). The effect of web based depression interventions on self reported help seeking: Randomised controlled trial. *BMC Psychiatry*, 6, 13.

**Christensen 2013 {published data only}**

\*Christensen, H., Farrer, L., Batterham, P. J., Mackinnon, A., Griffiths, K. M., & Donker, T. (2013). The effect of a web-based depression intervention on suicide ideation: Secondary outcome from a randomised controlled trial in a helpline. *BMJ Open*, 3(6), 002886.

**Chu 2016 {published data only}**

\*Chu, B. C., Crocco, S. T., Esseling, P., Areizaga, M. J., Lindner, A. M., & Skriner, L. C. (2016). Transdiagnostic group behavioral activation and exposure therapy for youth anxiety and depression: Initial randomized controlled trial. *Behaviour Research and Therapy*, 76, 65–75.

**Clarke 1992 {published data only}**

\*Clarke, G., Hops, H., Lewinsohn, P. M., Andrews, J., Seeley, J. R., & Williams, J. (1992). Cognitive-behavioral group treatment of adolescent depression: Prediction of outcome. *Behavior Therapy*, 23(3), 341–354.

**Clarke 2001a {published data only}**

\*Clarke, G. (2001). Cognitive-behavioral treatment and prevention of adolescent depression. In 154th Annual Meeting of the American Psychiatric Association May 5–10. New Orleans, LA, 22F.

**Clarke 2005 {published data only}**

\*Clarke, G., DeBar, L., Lynch, F., Powell, J., Gale, J., O'Connor, E., Ludman, E., Bush, T., Lin, E. H. B., Von Korff, M., & Hertert, S. (2005). A randomized effectiveness trial of brief cognitive-behavioral therapy for depressed adolescents receiving antidepressant medication. *Journal of the American Academy of Child and Adolescent Psychiatry*, 44(9), 888–898.

**Clarke 2009 {published data only}**

\*Clarke, G., Kelleher, C., Hornbrook, M., DeBar, L., Dickerson, J., & Gullion, C. (2009). Randomized effectiveness trial of an internet, pure self-help, cognitive behavioral intervention for depressive symptoms in young adults. *Cognitive Behaviour Therapy*, 38(4), 222–234.

**Clarke 2014 {published data only}**

\*Clarke, J., Proudfoot, J., Birch, M. R., Whitton, A. E., Parker, G., Manicavasagar, V., Harrison, V., Christensen, H., & Hadzi-Pavlovic, D. (2014). Effects of mental health self-efficacy on outcomes of a mobile phone and web intervention for mild-to-moderate depression, anxiety and stress: Secondary analysis of a randomised controlled trial. *BMC Psychiatry*, 14(1), 272.

**Coats 1982 {published data only}**

\*Coats Kevin, I. (1982). *An experimental investigation of a cognitive-behavioural treatment for depression with adolescents*. The University of Wisconsin - Madison.

**Collado 2016 {published data only}**

\*Collado, A., Calderon, M., MacPherson, L., & Lejuez, C. (2016). The efficacy of behavioral activation treatment among depressed Spanish-speaking Latinos. *Journal of Consulting and Clinical Psychology*, 84(7), 651–657.

**Compas 2011 {published data only}**

\*Compas, B. E., Forehand, R., Thigpen, J. C., Keller, G., Hardcastle, E. J., Cole, D. A., Potts, J., Watson, K. H., Rakow, A., Colletti, C., Reeslund, K., Fear, J., Garai, E., McKee, L., Merchant, M. J., & Roberts, L. (2011). Family group cognitive-behavioral preventive intervention for families of depressed parents: 18- and 24-month outcomes. *Journal of Consulting and Clinical Psychology*, 79(4), 488–499.

**Compas 2015 {published data only}**

\*Compas, B. E., Forehand, R., Thigpen, J., Hardcastle, E., Garai, E., McKee, L., Keller, G., Dunbar, J. P., Watson, K. H., Rakow, A., Bettis, A., Reising, M., Cole, D., & Sterba, S. (2015). Efficacy and moderators of a family group cognitive-behavioral preventive intervention for children of parents with depression. *Journal of Consulting and Clinical Psychology, 83*(3), 541–553.

**Conradi 2008 {published data only}**

\*Conradi, H. J., de Jonge, P., & Ormel, J. (2008). Cognitive-behavioural therapy v. usual care in recurrent depression. *British Journal of Psychiatry, 193*(6), 505–506.

**Cook 2016 {published data only}**

\*Cook, L., & Watkins, E. (2016). Guided, internet-based, rumination-focused cognitive behavioural therapy (i-RFCBT) versus a no-intervention control to prevent depression in high-ruminating young adults, along with an adjunct assessment of the feasibility of unguided i-RFCBT, in the REducing Stress and Preventing Depression trial (RESPOND): Study protocol for a phase III randomised controlled trial. *Trials, 17*(1), 1–11.

**CTRI/2012/10/003043 {unpublished data only}**

\*CTRI/2012/10/003043. To develop and evaluate computer assisted cognitive behavior therapy compared to treatment as usual on adolescents with depression. Retrieved 5 October 2012. <http://www.ctri.nic.in/Clinicaltrials/pmaindet2.php?trialid=4840>

**Curry 2006 {published data only}**

\*Curry, J., Rohde, P., Simons, A., Silva, S., Vitiello, B., Kratochvil, C., Reinecke, M., Feeny, N., Wells, K., Pathak, S., Weller, E., Rosenberg, D., Kennard, B., Robins, M., Ginsburg, G., & March, J. (2006). Predictors and moderators of acute outcome in the Treatment for Adolescents with Depression Study (TADS). *Journal of the American Academy of Child and Adolescent Psychiatry, 45*(12), 1427–1439.

**Curry 2011 {published data only}**

Curry, J., Silva, S., Rohde, P., Ginsburg, G., Kratochvil, C., Simons, A., Kirchner, J., May, D., Kennard, B., Mayes, T., Feeny, N., Albano, A. M., Lavanier, S., Reinecke, M., Jacobs, R., Becker-Weidman, E., Weller, E., Emslie, G., Walkup, J., Kastelic, E., Burns, B., Wells, K., & March, J. (2011). Recovery and recurrence following treatment for adolescent major depression. *Archives of General Psychiatry, 68*(3), 263–269.

**Dana 1998 {published data only}**

\*Dana, E. C. (1998). A cognitive-behavioral intervention for conduct disordered and concurrently conduct disordered and depressed children. *Dissertation Abstracts International, 59*(1-A), 0322.

**David 2018 {published data only}**

\*David, O. A., Cardos, R. A. I., & Matu, S. (2019). Changes in irrational beliefs are responsible for the efficacy of the RETHink therapeutic

game in preventing emotional disorders in children and adolescents: Mechanisms of change analysis of a randomized clinical trial. *European Child & Adolescent Psychiatry, 28*(3), 307–318.

**David 2019 {published data only}**

\*David, O. A., Cardoso, R. A. I., & Matu, S. (2019). Is RETHink therapeutic game effective in preventing emotional disorders in children and adolescents? Outcomes of a randomized clinical trial. *European Child & Adolescent Psychiatry, 28*(1), 111–122.

**Day 2013 {published data only}**

\*Day, V., McGrath, P. J., & Wojtowicz, M. (2013). Internet-based guided self-help for university students with anxiety, depression and stress: A randomized controlled clinical trial. *Behaviour Research and Therapy, 51*(7), 344–351.

**Dean 2016 {published data only}**

\*Dean, S., Britt, E., Bell, E., Stanley, J., & Collings, S. (2016). Motivational interviewing to enhance adolescent mental health treatment engagement: A randomized clinical trial. *Psychological Medicine, 46*(9), 1961–1969.

**Dear 2018 {published data only}**

ACTRN12613000915752. A randomized controlled trial of the effects of self-guided vs. guided Internet-administered treatment on symptoms of anxiety and depression in Australian young adults (18–24). Retrieved 13 August 2013. <https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=12613000915752>

\*Dear, B. F., Fogliati, V. J., Fogliati, R., Johnson, B., Boyle, O., Karin, E., Gandy, M., Kayrouz, R., Staples, L. G., & Titov, N. (2018). Treating anxiety and depression in young adults: A randomised controlled trial comparing clinician-guided versus self-guided Internet-delivered cognitive behavioural therapy. *Australian and New Zealand Journal of Psychiatry, 52*(7), 668–679.

**de Graaf 2009 {published data only}**

\*de Graaf, L. E., Gerhards, S. A., Arntz, A., Riper, H., Metsemakers, J. F., Evers, S. M., Severens, J. L., Widdershoven, G., & Huibers, M. J. (2009). Clinical effectiveness of online computerised cognitive-behavioural therapy without support for depression in primary care: Randomised trial. *British Journal of Psychiatry, 195*(1), 73–80.

**de Graaf 2010 {published data only}**

\*de Graaf, L. E., Hollon, S. D., & Huibers, M. J. H. (2010). Predicting outcome in computerized cognitive behavioral therapy for depression in primary care: A randomized trial. *Journal of Consulting and Clinical Psychology, 78*(2), 184–189.

**De Jonge-Heesen 2020 {published data only}**

\*De Jonge-Heesen, K. W. J., Rasing, S. P. A., Vermulst, A. A., Scholte, R. H. J., & Van Ettehoven, K. M. (2020). Engels RCME, creemers DHM. randomized control trial testing the effectiveness of implemented depression prevention in high-risk adolescents. *BMC Medicine, 18*, 188.

de Jonge-Heesen, K. W. J., van Etteken, K. M., Rasing, S. P. A., Oprins-van Liempd, F. H. J., Vermulst, A. A., Engels, R. C. M. E., & Creemers, D. H. M. (2016). Evaluation of a school-based depression prevention program among adolescents with elevated depressive symptoms: Study protocol of a randomized controlled trial. *BMC Psychiatry*, *16*, 402.

#### Dickerson 2018 {published data only}

\*Dickerson, J. F., Lynch, F. L., Leo, M. C., DeBar, L. L., Pearson, J., & Clarke, G. N. (2018). Cost-effectiveness of cognitive behavioral therapy for depressed youth declining antidepressants. *Pediatrics*, *141*(2), e20171969.

#### Dietz 2014 {published data only}

\*Dietz, L. J., Marshal, M. P., Burton, C. M., Bridge, J. A., Birmaher, B., Kolko, D., Duffy, J. N., & Brent, D. A. (2014). Social problem solving among depressed adolescents is enhanced by structured psychotherapies. *Journal of Consulting and Clinical Psychology*, *82*(2), 202–211.

#### DiFonte 2016 {published data only}

\*DiFonte, M. C., Gladstone, T. R., Diehl, A., & Beardslee, W. R. (2016). The effect of current parental depressive symptoms on child preventive intervention response. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(10 Supplement 1), S239.

#### Donker 2013 {published data only}

\*Donker, T., Batterham, P. J., Warmerdam, L., Bennett, K., Bennett, A., Cuijpers, P., Griffiths, K. M., & Christensen, H. (2013). Predictors and moderators of response to internet-delivered interpersonal psychotherapy and cognitive behavior therapy for depression. *Journal of Affective Disorders*, *151*(1), 343–351.

#### DRKS00020941 {published data only}

\*DRKS00020941. Application of a self-help smartphone app for students with depressive symptoms: A randomized controlled trial. Retrieved 27 March 2020. <http://www.drks.de/DRKS00020941>

#### Duong 2016 {published data only}

\*Duong, M. T., Cruz, R. A., King, K. M., Violette, H. D., & McCarty, C. A. (2016). Twelve-month outcomes of a randomized trial of the positive thoughts and action program for depression among early adolescents. *Prevention Science*, *17*(3), 295–305.

#### Emslie 2015 {published data only}

\*Emslie, G. J., Kennard, B. D., Mayes, T. L., Nakonezny, P. A., Moore, J., Jones, J. M., Foxwell, A. A., & King, J. (2015). Continued effectiveness of relapse prevention cognitive-behavioral therapy following fluoxetine treatment in youth with major depressive disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, *54*(12), 991–998.

#### Ezeudu 2019 {published data only}

\*Ezeudu, F. O., Eya, N. M., Nwafor, S. C., & Ogbonna, C. S. (2019). Intervention for depression among chemistry education undergraduates in a Nigerian university. *Journal of International Medical Research*, *48*(1), 1–6.

#### Fawcett 2020 {published data only}

\*Fawcett, E., Neary, M., Ginsburg, R., & Cornish, P. (2020). Comparing the effectiveness of individual and group therapy for students with symptoms of anxiety and depression: A randomized pilot study. *Journal of American College Health*, *68*(4), 430–437.

#### Feehan 1996 {published data only}

\*Feehan, C. J., & Vostanis, P. (1996). Cognitive-behavioural therapy for depressed children: Children's and therapists' impressions. *Behavioural and Cognitive Psychotherapy*, *24*(2), 171–183.

#### Fine 1993 {published data only}

\*Fine, S., & Gilbert, M. (1993). Short-term group therapy with depressed adolescents. In *Casebook of the brief psychotherapies* (pp. 375–387). Springer.

#### Fletcher 2005 {published data only}

\*Fletcher, J., Lovell, K., Bower, P., Campbell, M., & Dickens, C. (2005). Process and outcome of a non-guided self-help manual for anxiety and depression in primary care: A pilot study. *Behavioural and Cognitive Psychotherapy*, *33*(3), 319–331.

#### Forehand 2012 {published data only}

\*Forehand, R., Thigpen, J. C., Parent, J., Hardcastle, E. J., Bettis, A., & Compas, B. E. (2012). The role of parent depressive symptoms in positive and negative parenting in a preventive intervention. *Journal of Family Psychology*, *26*(4), 532–541.

#### Freres 2002 {published data only}

\*Freres, D. R., Gillham, J. E., Reivich, K., & Shatte, A. J. (2002). Preventing depressive symptoms in middle school students: The Penn Resiliency Program. *International Journal of Emergency Mental Health*, *4*(1), 31–40.

#### Gau 2012 {published data only}

\*Gau, J. M., Stice, E., Rohde, P., & Seeley, J. R. (2012). Negative life events and substance use moderate cognitive behavioral adolescent depression prevention intervention. *Cognitive Behaviour Therapy*, *41*(3), 241–250.

NCT00183417. Depression Prevention Program for High-Risk Adolescents. Retrieved 16 September 2005. <https://clinicaltrials.gov/ct2/show/NCT00183417>



**Gega 2013 {published data only}**

\*Gega, L., Smith, J., & Reynolds, S. (2013). Cognitive behaviour therapy (CBT) for depression by computer vs. therapist: Patient experiences and therapeutic processes. *Psychotherapy Research*, 23(2), 218–231.

**Geisner 2006 {published data only}**

\*Geisner, I. M., Neighbors, C., & Larimer, M. E. (2006). A randomized clinical trial of a brief, mailed intervention for symptoms of depression. *Journal of Consulting and Clinical Psychology*, 74(2), 393–399.

**Geisner 2015 {published data only}**

\*Geisner, I. M., Varvil-Weld, L., Mittmann, A. J., Mallett, K., & Turrissi, R. (2015). Brief web-based intervention for college students with comorbid risky alcohol use and depressed mood: Does it work and for whom? *Addictive Behaviors*, 42, 36–43.

**Gerhards 2010 {published data only}**

\*Gerhards, S. A. H., de Graaf, L. E., Jacobs, L. E., Severens, J. L., Huibers, M. J. H., Arntz, A., Riper, H., Widdershoven, G., Metsemakers, J. F. M., & Evers, S. (2010). Economic evaluation of online computerised cognitive-behavioural therapy without support for depression in primary care: Randomised trial. *The British Journal of Psychiatry*, 196(4), 310–318.

**Gijzen 2018 {published data only}**

\*Gijzen, M. W. M., Creemers, D. H. M., Rasing, S. P. A., Smit, F., & Engels, R. C. M. E. (2018). Evaluation of a multimodal school-based depression and suicide prevention program among Dutch adolescents: Design of a cluster-randomized controlled trial. *BMC Psychiatry*, 18(1), 124. <https://doi.org/10.1186/s12888-018-1710-2>

**Gillham 1995 {published data only}**

\*Gillham, J. E., Reivich, K. J., Jaycox, L. H., & Seligman, M. E. P. (1995). Prevention of depressive symptoms in school-children: Two year follow-up. *Psychological Science*, 6(6), 343–351.

**Gillham 1999 {published data only}**

\*Gillham, J., & Reivich, K. (1999). Prevention of depressive symptoms in school-children. *Psychological Science*, 10(5), 461–462.

**Gillham 2006 {published data only}**

\*Gillham, J. E., Reivich, K. J., Freres, D. R., Lascher, M., Litzinger, S., Shatte, A., & Seligman, M. E. (2006). School-based prevention of depression and anxiety symptoms in early adolescence: A pilot of a parent intervention component. *School Psychology Quarterly*, 21(3), 323–348.

**Gillham 2006a {published data only}**

\*Gillham, J. E., Hamilton, J., Freres, D. R., Patton, K., & Gallop, R. (2006). Preventing depression among early adolescents in the primary care

setting: A randomized controlled study of the Penn resiliency program. *Journal of Abnormal Child Psychology*, 34(2), 203–219.

**Gillham 2007 {published data only}**

\*Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatte, A. J., Samuels, B., Elkon, A. G., Litzinger, S., Lascher, M., Gallop, R., & Seligman, M. E. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal of Consulting and Clinical Psychology*, 75(1), 9–19.

**Gillham 2012 {published data only}**

\*Gillham, J. E., Reivich, K. J., Brunwasser, S. M., Freres, D. R., Chajon, N. D., Kash-Macdonald, V. M., Chaplin, T. M., Abenavoli, R. M., Matlin, S. L., Gallop, R. J., & Seligman, M. E. (2012). Evaluation of a group cognitive-behavioral depression prevention program for young adolescents: A randomized effectiveness trial. *Journal of Clinical Child and Adolescent Psychology*, 41(5), 621–639.

NCT00360451. Effectiveness of school-based cognitive behavioral therapy in preventing depression in young adolescents. Retrieved 4 August 2006. <https://clinicaltrials.gov/ct2/show/NCT00360451>

**Givi 2012 {published data only}**

\*Givi, H. G., Imani, H., Agh, A., Rik, N. M., & Mehrabadi, S. (2012). Efficiency of computerized cognitive behavioral therapy versus clinical intervention for the treatment of major depression. *Koomesh*, 13(2), 218–224.

**Gladstone 2020 {published data only}**

\*Gladstone, T., Buchholz, K. R., Fitzgibbon, M., Schiffer, L., Lee, M., & Voorhees, B. W. V. (2020). Randomized clinical trial of an internet-based adolescent depression prevention intervention in primary care: Internalizing symptom outcomes. *International Journal of Environmental Research and Public Health*, 17(21), 22. <https://doi.org/10.3390/ijerph17217736>

**Gollan 2003 {published data only}**

\*Gollan, J. K., Raffety, B., & Dobson, K. (2003). Early-onset and course profiles of major depression after cognitive-behavior therapy. In 156th Annual Meeting of the American Psychiatric Association, San Francisco, CA, May 17–22 (NR496).

**Gonzalez 2007 {published data only}**

\*Gonzalez, S. G., Rodriguez, C. F., Rodriguez, J. P., & Amigo, I. (2007). Secondary prevention of depression in primary care. *Psychology in Spain*, 11(1), 24–32.

**Goodyer 2011 {published data only}**

\*Goodyer, I. M., Tsancheva, S., Byford, S., Dubicka, B., Hill, J., Kelvin, R., Reynolds, S., Roberts, C., Senior, R., Suckling, J., Wilkinson, P., Target, M., & Fonagy, P. (2011). Improving mood with psychoanalytic and cognitive therapies (IMPACT): A pragmatic

effectiveness superiority trial to investigate whether specialised psychological treatment reduces the risk for relapse in adolescents with moderate to severe unipolar depression: Study protocol for a randomised controlled trial. *Trials*, 12, 175.

#### Goodyer 2017 {published data only}

Anonymous. (2017). Correction: Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): A multicenter, pragmatic, observer-blind, randomized controlled superiority trial. *The Lancet Psychiatry*, 4(8), 582.

\*Goodyer, I. M., Reynolds, S., Barrett, B., Byford, S., Dubicka, B., Hill, J., Holland, F., Kelvin, R., Midgley, N., Roberts, C., Senior, R., Target, M., Widmer, B., Wilkinson, P., & Fonagy, P. (2017). Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): A multicentre, pragmatic, observer-blind, randomised controlled superiority trial. *The Lancet Psychiatry*, 4, 109–119. [https://doi.org/10.1016/S2215-0366\(16\)30378-9](https://doi.org/10.1016/S2215-0366(16)30378-9)

#### Goossens 2016 {published data only}

\*Goossens Ferry, X., Lammers, J., Onrust, S. A., Conrod, P. J., Orobio de Castro, B., & Monshouwer, K. (2016). Effectiveness of a brief school-based intervention on depression, anxiety, hyperactivity, and delinquency: A cluster randomized controlled trial. *European Child & Adolescent Psychiatry*, 25(6), 639–648.

#### Gordon 2011 {published data only}

\*Gordon, M. S., Tonge, B., & Melvin, G. A. (2011). Outcome of adolescent depression: 6 months after treatment. *Australian and New Zealand Journal of Psychiatry*, 45(3), 232–239.

#### Griffiths 2012 {published data only}

\*Griffiths, K. M., Mackinnon, A. J., Crisp, D. A., Christensen, H., Bennett, K., & Farrer, L. (2012). The effectiveness of an online support group for members of the community with depression: A randomised controlled trial. *PLoS One*, 7(12), e53244.

#### Haeffel 2010 {published data only}

\*Haeffel, G. J. (2010). When self-help is no help: Traditional cognitive skills training does not prevent depressive symptoms in people who ruminate. *Behaviour Research and Therapy*, 48(2), 152–157.

#### Haeffel 2017 {published data only}

\*Haeffel, G. J., Hein, S., Square, A., Macomber, D., Lee, M., Chapman, J., & Grigorenko, E. L. (2017). Evaluating a social problem solving intervention for juvenile detainees: Depressive outcomes and moderators of effectiveness. *Development and Psychopathology*, 29(3), 1035–1042.

#### Hallgren 2015 {published data only}

\*Hallgren, M., Kraepelien, M., Öjehagen, A., Lindefors, N., Zeebari, Z., Kaldo, V., & Forsell, Y. (2015). Physical exercise and internet-based cognitive-behavioural therapy in the treatment of depression: Randomised controlled trial. *British Journal of Psychiatry*, 207(3), 227–234.

#### Hamdan-Mansour 2009 {published data only}

\*Hamdan-Mansour, A. M., Puskar, K., & Bandak, A. G. (2009). Effectiveness of cognitive-behavioral therapy on depressive symptomatology, stress and coping strategies among Jordanian university students. *Issues in Mental Health Nursing*, 30(3), 188–196.

#### He 2019 {published data only}

\*He, H. L., Zhang, M., Gu, C. Z., Xue, R. R., Liu, H. X., Gao, C. F., & Duan, H. F. (2019). Effect of cognitive behavioral therapy on improving the cognitive function in major and minor depression. *Journal of Nervous and Mental Disease*, 207(4), 232–238.

#### Hoek 2011 {published data only}

\*Hoek, W., Marko, M., Fogel, J., Schuurmans, J., Gladstone, T., Bradford, N., Domanico, R., Fagan, B., Bell, C., & Reinecke, M. A. (2011). Randomized controlled trial of primary care physician motivational interviewing versus brief advice to engage adolescents with an Internet-based depression prevention intervention: 6-month outcomes and predictors of improvement. *Translational Research*, 158(6), 315–325.

#### Hoek 2012 {published data only}

\*Hoek, W., Schuurmans, J., Koot, H. M., & Cuijpers, P. (2012). Effects of internet-based guided self-help problem-solving therapy for adolescents with depression and anxiety: A randomized controlled trial. *PLoS One*, 7(8), e43485.

#### Hollandare 2013 {published data only}

\*Hollandare, F., Anthony, S. A., Randestad, M., Tillfors, M., Carlbring, P., Andersson, G., & Engstrom, I. (2013). Two-year outcome of internet-based relapse prevention for partially remitted depression. *Behaviour Research and Therapy*, 51(11), 719–722.

#### Horowitz 2007 {published data only}

\*Horowitz, J. L., Garber, J., Ciesla, J. A., Young, J. F., & Mufson, L. (2007). Prevention of depressive symptoms in adolescents: A randomized trial of cognitive-behavioral and interpersonal prevention programs. *Journal of Consulting and Clinical Psychology*, 75(5), 693.

#### Hur 2018 {published data only}

\*Hur, J. W., Kim, B., Park, D., & Choi, S. W. (2018). A scenario-based cognitive behavioral therapy mobile app to reduce dysfunctional beliefs in individuals with depression: A randomized controlled trial. *Telemedicine Journal and E-Health*, 24(9), 710–716.

**Hvenegaard 2015 {published data only}**

\*Hvenegaard, M., Watkins, E. R., Poulsen, S., Rosenberg, N. K., Gondan, M., Grafton, B., Austin, S. F., Howard, H., & Moeller, S. B. (2015). Rumination-focused cognitive behaviour therapy vs. cognitive behaviour therapy for depression: Study protocol for a randomised controlled superiority trial. *Trials*, 16, 344.

**Hyun 2005 {published data only}**

\*Hyun, M. S., Chung, H. I. C., & Lee, Y. J. (2005). The effect of cognitive-behavioral group therapy on the self-esteem, depression, and self-efficacy of runaway adolescents in a shelter in South Korea. *Applied Nursing Research*, 18(3), 160–166.

**Hyun 2010 {published data only}**

\*Hyun, M. S., Nam, K. A., & Kim, M. A. (2010). Randomized controlled trial of a cognitive-behavioral therapy for at-risk Korean male adolescents. *Archives of Psychiatric Nursing*, 24(3), 202–211.

**Iftene 2015 {published data only}**

\*Iftene, F., Predescu, E., Stefan, S., & David, D. (2015). Rational-emotive and cognitive-behavior therapy (REBT/CBT) versus pharmacotherapy versus REBT/CBT plus pharmacotherapy in the treatment of major depressive disorder in youth; a randomized clinical trial. *Psychiatry Research*, 225(3), 687–694.

**Imber 1990 {published data only}**

\*Imber, S. D., Pilkonis, P. A., Sotsky, S. M., Elkin, I., Watkins, J. T., Collins, J. F., Shea, M. T., Leber, W. R., & Glass, D. R. (1990). Mode-specific effects among three treatments for depression. *Journal of Consulting and Clinical Psychology*, 58(3), 352–359.

**Ingram 2012 {published data only}**

\*Ingram, D., & Moreno, M. (2012). A computerized self-help intervention is as effective as face-to-face counseling for adolescents seeking help for depression. *The Journal of Pediatrics*, 161(5), 967–968.

**Isaacs 2017 {published data only}**

\*Isaacs, D. (2017). Cognitive behavioural therapy for major depression. *Journal of Paediatrics and Child Health*, 53(3), 317.

**ISRCTN95425657 {published data only}**

\*ISRCTN95425657. TARGET: Targeted depression prevention program for at-risk adolescents. Retrieved 28 June 2013. <https://doi.org/10.1186/ISRCTN95425657>

**Jaycox 1994 {published data only}**

Jaycox, L. H., Reivich, K. J., Gillham, J., & Seligman, M. (1994). Preventing depressive symptoms in school children. *Behaviour Research and Therapy*, 32, 801–816.

\*Jaycox, L. H., Reivich, K. J., Gillham, J., & Seligman, M. E. (1994). Prevention of depressive symptoms in school children. *Behaviour Research and Therapy*, 32(8), 801–816.

**John 2011 {published data only}**

\*John Shepherd, M. (2011). *An investigation into the design, applicability and evaluation of a computerised cognitive behavioural therapy programme-SPARX for Māori young people experiencing mild to moderate depression*. University of Auckland.

**Kahn 1990 {published data only}**

Kahn, J. S., Kehle, T. J., Jenson, W. R., & Clarke, E. (1990). Comparison of cognitive-behavioural, relaxation, and self-modelling interventions for depression among middle-school students. *School Psychology Review*, 19(2), 196–211.

\*Kahn, J. S., Kehle, T. J., Jenson, W. R., & Clark, E. (1990). Comparison of cognitive-behavioral, relaxation, and self-modeling interventions for depression among middle-school students. *School Psychology Review*, 19(2), 196–211.

Khan, J. S., Kehle, T. J., Jenson, W. R., & Clark, E. (1990). Comparison of cognitive behavioral, relaxation and self-monitoring interventions for depression among middle-school students. *School Psychology Review*, 19, 196–211.

**Karami 2013 {published data only}**

\*Karami, S., Fakhr, A. S., & Ghasemzadeh, A. R. (2013). A study of the effectiveness of group cognitive-behavioral therapy (GCBT) in reducing depression in children of divorce. *Journal of Medical Council of IRI*, 31(3), 218–223.

**Kennard 2009 {published data only}**

\*Kennard, B. D., Silva, S. G., Mayes, T. L., Rohde, P., Hughes, J. L., Vitiello, B., Kratochvil, C. J., Curry, J. F., Emslie, G. J., Reinecke, M. A., & March, J. S. (2009). Assessment of safety and long-term outcomes of initial treatment with placebo in TADS. *The American Journal of Psychiatry*, 166(3), 337–344.

**Kennard 2009a {published data only}**

\*Kennard, B. D., Silva, S. G., Tonev, S., Rohde, P., Hughes, J. L., Vitiello, B., Kratochvil, C. J., Curry, J. F., Emslie, G. J., Reinecke, M., & March, J. (2009). Remission and recovery in the Treatment for Adolescents with Depression Study (TADS): Acute and long-term outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(2), 186–195.

**Keshi 2013 {published data only}**

\*Keshi, A. K., Basavarajappa, P., & Nik, M. M. (2013). Effectiveness of cognitive behavior therapy on depression among high school students. *Journal of Basic and Applied Scientific Research*, 3(2), 147–158.

**Kessler 2009 {published data only}**

\*Kessler, D., Lewis, G., Kaur, S., Wiles, N., King, M., Weich, S., Sharp, D. J., Araya, R., Hollinghurst, S., & Peters, T. J. (2009). Therapist-delivered Internet psychotherapy for depression in primary care: A randomised controlled trial. *The Lancet*, 374(9690), 628–634.

**Kim 2011 {published data only}**

\*Kim, G. H., Kim, K., & Park, H. (2011). Outcomes of a program to reduce depression. *Western Journal of Nursing Research*, 33(4), 560–576.

**Kim 2015 {published data only}**

\*Kim, H. K., & Chang, H. A. (2015). Effects of cognitive-behavioral group program for children of divorce on depression, self-esteem, and perception of divorce. *The Korea Journal of Youth Counseling*, 23(2), 423–445.

**Kindt 2014 {published data only}**

\*Kindt, K. C. M., Kleinjan, M., Janssens, J. M. A. M., & Scholte, R. H. J. (2014). Evaluation of a school-based depression prevention program among adolescents from low-income areas: A randomized controlled effectiveness trial. *International Journal of Environmental Research and Public Health*, 11, 5273–5293. <https://doi.org/10.3390/ijerph110505273>

**Kindt 2016 {published data only}**

\*Kindt, K. C., Kleinjan, M., Janssens, J. M., & Scholte, R. H. (2016). The effect of a depression prevention program on negative cognitive style trajectories in early adolescents. *Health Education Research*, 31(5), 665–677.

**Kirkpatrick 1977 {published data only}**

\*Kirkpatrick, P. W. (1977). *The efficacy of cognitive behavior modification in the treatment of depression*. The University of Texas at Austin.

**Koeser 2013 {published data only}**

\*Koeser, L., Dobbin, A., Ross, S., & McCrone, P. (2013). Economic evaluation of audio based resilience training for depression in primary care. *Journal of Affective Disorders*, 149(1–3), 307–312.

**Kowalenko 2005 {published data only}**

\*Kowalenko, N., Rapee, R. M., Simmons, J., Wignall, A., Hoge, R., Whitefield, K., Starling, J., Stonehouse, R., & Baillie, A. J. (2005). Short-term effectiveness of a school-based early intervention program for adolescent depression. *Clinical Child Psychology and Psychiatry*, 10(4), 493–507.

**Kratochvil 2006 {published data only}**

\*Kratochvil, C., Emslie, G., Silva, S., McNulty, S., Walkup, J., Curry, J., Reinecke, M., Vitiello, B., Rohde, P., Feeny, N., Casat, C., Pathak, S., Weller, E., May, D., Mayes, T., Robins, M., & March, J. (2006). Acute time to response in the Treatment for Adolescents with Depression Study (TADS). *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(12), 1412–1418.

**Kumar 2015 {published data only}**

\*Kumar, K., & Gupta, M. (2015). Effectiveness of psycho-educational intervention in improving outcome of unipolar depression: Results from a randomised clinical trial. *East Asian Archives of Psychiatry*, 25(1), 29–34.

**Kumara 2016 {published data only}**

\*Kumara, H., & Kumar, V. (2016). Impact of cognitive behavior therapy on anxiety and depression in adolescent students. *Journal of Psychosocial Research*, 11(1), 77–85.

**Kuosmanen 2017 {published data only}**

\*Kuosmanen, T., Fleming, T. M., Newell, J., & Barry, M. M. (2017). A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education. *Internet Interventions*, 8, 40–47.

**Kurki 2011 {published data only}**

\*Kurki, M., Anttila, M., Koivunen, M., Kaltiala-Heino, R., Marttunen, M., & Valimaki, M. (2011). Depressed adolescents' adherence to an Internet-based self-help programme to assess depression: Preliminary findings [conference abstract]. In European Child and Adolescent Psychiatry [Abstracts from the 14th International Congress of ESCAP European Society for Child and Adolescent Psychiatry]. Helsinki, Finland.

**Langley 2015 {published data only}**

\*Langley, A. K., Gonzalez, A., Sugar, C. A., Solis, D., & Jaycox, L. (2015). Bounce back: Effectiveness of an elementary school-based intervention for multicultural children exposed to traumatic events. *Journal of Consulting and Clinical Psychology*, 83(5), 853–865.

**Lee 2020 {published data only}**

\*Lee, S., & Lee, E. (2020). Effects of cognitive behavioral group program for mental health promotion of university students. *International Journal of Environmental Research and Public Health*, 17(10), 17.

**Lewinsohn 1994 {unpublished data only}**

\*Lewinsohn, P. M., Rohde, P., Clarke, G. N., Hops, H., & Seeley, J. R. Cognitive-behavioral treatment for depressed adolescents: Treatment outcome and the role of parental involvement. Manuscript in preparation 1994.

**Lewinsohn 1996 {published data only}**

\*Lewinsohn, P. M., Clarke, G. N., Rohde, P., & Hops, H. (1996). A course in coping: A cognitive-behavioral approach to the treatment of adolescent depression. In E. D. Hibbs, & P. S. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders. Empirically based strategies for clinical practice* (pp. 109–135). American Psychological Association.

**Lewis 2013 {published data only}**

\*Lewis, A. J., Bertino, M. D., Skewes, J., Shand, L., Borojevic, N., Knight, T., Lubman, D. I., & Toumbourou, J. W. (2013). Adolescent depressive disorders and family based interventions in the family options multicenter evaluation: Study protocol for a randomized controlled trial. *Trials*, 14(1), 384.

**Lillevoll 2014 {published data only}**

\*Lillevoll, K. R., Vangberg, H. C. B., Griffiths, K. M., Waterloo, K., & Eisemann, M. R. (2014). Uptake and adherence of a self-directed internet-based mental health intervention with tailored e-mail reminders in senior high schools in Norway. *BMC Psychiatry*, 14, 14.

**Lopes 2014 {published data only}**

\*Lopes, R. T., Goncalves, M. M., Fassnacht, D. B., Machado, P.P.P., & Sousa, I. (2014). Long-term effects of psychotherapy on moderate depression: A comparative study of narrative therapy and cognitive-behavioral therapy. *Journal of Affective Disorders*, 167, 64–73.

**Lorentzen 2020 {published data only}**

\*Lorentzen, V., Fagermo, K., Handegård, B. H., Skre, I., & Neumer, S. P. (2020). Effectiveness of cognitive behavioral short-term treatment for adolescents with emotional symptom problems in community clinics in Norway. A randomized controlled study. *BMC Psychology*, 8, 25. <https://doi.org/10.1186/s40359-020-0393-x>

**Lucassen 2012 {published data only}**

\*Lucassen, M., Merry, S. N., & Hatcher, S. (2012). That's [not] so gay: Computerised cognitive behavioural therapy for depressive symptoms in sexual minority youth. In 20th World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (p. S141). Paris, France: IACAPAP.

**Luty 2007 {published data only}**

\*Luty, S. E., Carter, J. D., McKenzie, J. M., Rae, A. M., Frampton, C. M., Mulder, R. T., & Joyce, P. R. (2007). Randomised controlled trial of interpersonal psychotherapy and cognitive-behavioural therapy for depression. *British Journal of Psychiatry*, 190, 496–502.

**Ly 2015 {published data only}**

\*Ly, K. H., Topooco, N., Cederlund, H., Wallin, A., Bergstrom, J., Molander, O., Carlbring, P., & Andersson, G. (2015). Smartphone-supported versus full behavioural activation for depression: A randomised controlled trial. *PLoS One*, 10(5), e0126559.

**Lynch 1997 {published data only}**

\*Lynch, D. J., Tamburrino, M. B., & Nagel, R. (1997). Telephone counselling for patients with minor depression: Preliminary findings in a family practice setting. *Journal of Family Practice*, 44(3), 293–298.

**Lynch 2005 {published data only}**

\*Lynch, F. L., Hornbrook, M., Clarke, G. N., Perrin, N., Polen, M. R., O'Connor, E., & Dickerson, J. (2005). Cost-effectiveness of an intervention to prevent depression in at-risk teens. *Archives of General Psychiatry*, 62(11), 1241–1248.

**Manassis 2010 {published data only}**

\*Manassis, K., Wilansky-Traynor, P., Farzan, N., Kleiman, V., Parker, K., & Sanford, M. (2010). The feelings club: Randomized controlled

evaluation of school-based CBT for anxious or depressive symptoms. *Depression and Anxiety*, 27(10), 945–952.

**March 2006 {published data only}**

\*March, J. S. (2006). Treatment for Adolescents with Depression Study (TADS): Longer-term outcomes. In 46th Annual NCDEU (New Clinical Drug Evaluation Unit) Meeting; 2006 June 12–15; Boca Raton, FL (p. 43).

**March 2006a {published data only}**

\*March, J., Silva, S., Vitiello, B., & Team, T. (2006). The Treatment for Adolescents with Depression Study (TADS): Methods and message at 12 weeks. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(12), 1393–1403.

**Marcotte 1993a {published data only}**

\*Marcotte, D., & Baron, P. (1993). The efficacy of a school-based rational-emotive intervention strategy with depressive adolescents. *Canadian Journal of Counselling*, 27(2), 77–92.

**Martinez 2014 {published data only}**

\*Martinez, V., Martinez, P., Vohringer, P. A., Araya, R., & Rojas, G. (2014). Computer-assisted cognitive-behavioral therapy for adolescent depression in primary care clinics in Santiago, Chile (YPSA-M): Study protocol for a randomized controlled trial. *Trials*, 15(1), 309. NCT01862913. Computer-assisted Cognitive-Behavioral Therapy for adolescent depression. Retrieved 27 May 2013. <https://clinicaltrials.gov/ct2/show/NCT01862913>

**Matos 2019 {published data only}**

\*Matos, A. P., Pinheiro, M. D. R., Costa, J. J., do Ceu Salvador, M., Arnarson, E. O., & Craighead, W. E. (2019). Prevention of initial depressive disorders among at-risk Portuguese adolescents. *Behavior Therapy*, 50(4), 743–754.

**McCarty 2013 {published data only}**

\*McCarty, C. A., Violette, H. D., Duong, M. T., Cruz, R. A., & McCauley, E. (2013). A randomized trial of the positive thoughts and action program for depression among early adolescents. *Journal of Clinical Child and Adolescent Psychology*, 42(4), 554–563.

**McCauley 2016 {published data only}**

\*McCauley, E., Gudmundsen, G., Schloedt, K., Martell, C., Rhew, I., Hubley, S., & Dimidjian, S. (2016). The adolescent behavioral activation program: Adapting behavioral activation as a treatment for depression in adolescence. *Journal of Clinical Child and Adolescent Psychology*, 45(3), 291–304.

**McCloud 2020 {published data only}**

\*McCloud, T., Jones, R., Lewis, G., Bell, V., & Tsakanikos, E. (2020). The effectiveness of a mobile app intervention for anxiety and

depression symptoms in university students: A randomised controlled trial. *JMIR mHealth and uHealth*, 8(7):e15418.

#### McKee 2014 {published data only}

\*McKee, L. G., Parent, J., Forehand, R., Rakow, A., Watson, K. H., Dunbar, J. P., Reising, M. M., Hardcastle, E., & Compas, B. E. (2014). Reducing youth internalizing symptoms: Effects of a family-based preventive intervention on parental guilt induction and youth cognitive style. *Development and Psychopathology*, 26(2), 319–332.

#### McNamara 1985 {published data only}

McNamara, K., & Horan, J. J. (1986). Experimental construct validity in the evaluation of cognitive and behavioral treatments for depression. *Journal of Counseling Psychology*, 33(1), 23.

\*McNamara, K. (1985). *Attending the experimental construct validity in the evaluation of cognitive and behavioral treatments for depression [Doctoral thesis]*. Colorado State University.

#### Melnyk 2013 {published data only}

Melnyk Bernadette, M., Jacobson, D., Kelly Stephanie, A., Belyea Michael, J., Shaibi Gabriel, Q., Small, L., O'Haver Judith, A., & Marsiglia Flavio, F. (2015). Twelve-month effects of the COPE healthy lifestyles TEEN program on overweight and depressive symptoms in high school adolescents. *The Journal of School Health*, 85(12), 861–870.

\*Melnyk Bernadette, M., Jacobson, D., Kelly, S., Belyea, M., Shaibi, G., Small, L., O'Haver, J., & Marsiglia Flavio, F. (2013). Promoting healthy lifestyles in high school adolescents: A randomized controlled trial. *American Journal of Preventative Medicine*, 45(4), 407–415.

#### Melnyk 2015 {published data only}

\*Melnyk, B. M., Amaya, M., Szalacha, L. A., Hoying, J., Taylor, T., & Bowersox, K. (2015). Feasibility, acceptability, and preliminary effects of the COPE online cognitive-behavioral skill-building program on mental health outcomes and academic performance in freshmen college students: A randomized controlled pilot study. *Journal of Child and Adolescent Psychiatric Nursing*, 28(3), 147–154.

#### Michelson 2016 {published data only}

\*Michelson, D., Sclare, I., Stahl, D., Morant, N., Bonin, E. M., & Brown, J. S. L. (2016). Early intervention for depression and anxiety in 16-18-year-olds: Protocol for a feasibility cluster randomised controlled trial of open-access psychological workshops in schools (DISCOVER). *Contemporary Clinical Trials*, 48, 52–58.

#### Miller 1999 {published data only}

\*Miller, J. B. (1999). *The effects of a cognitive-behavioral group intervention on depressive symptoms in an incarcerated adolescent delinquent population [Doctoral thesis]*. Wright Institute Graduate School of Psychology.

#### Minor 1988 {published data only}

\*Minor, M. A. (1988). *The effect of treatment modality on depression [Doctoral thesis]*. Howard University.

#### Mohr 2013 {published data only}

\*Mohr, D. C., Duffecy, J., Ho, J., Kwasny, M., Cai, X., Burns, M. N., & Begale, M. (2013). A randomized controlled trial evaluating a manualized telecoaching protocol for improving adherence to a web-based intervention for the treatment of depression. *PLoS One*, 8(8), e70086.

#### Moldovan 2013 {published data only}

\*Moldovan, R., Cobeau, O., & David, D. (2013). Cognitive bibliotherapy for mild depressive symptomatology: Randomized clinical trial of efficacy and mechanisms of change. *Clinical Psychology & Psychotherapy*, 20(6), 482–493.

#### Mondin 2015 {published data only}

\*Mondin, T. C., Cardoso, T. A., Jansen, K., Silva, G. G., Souza, L. D. M., & Silva, R. A. (2015). Long-term effects of cognitive therapy on biological rhythms and depressive symptoms: A randomized clinical trial. *Journal of Affective Disorders*, 187, 1–9.

#### Moreira 2015 {published data only}

\*Moreira, F. P., Cardoso, T. A., Mondin, T. C., Souza, L. D. M., Silva, R., Jansen, K., Oses, J. P., & Wiener, C. D. (2015). The effect of proinflammatory cytokines in cognitive behavioral therapy. *Journal of Neuroimmunology*, 285, 143–146.

#### Muller 2015 {published data only}

\*Muller, S., Rohde, P., Gau, J. M., & Stice, E. (2015). Moderators of the effects of indicated group and bibliotherapy cognitive behavioral depression prevention programs on adolescents' depressive symptoms and depressive disorder onset. *Behaviour Research and Therapy*, 75, 1–10.

#### Mullin 2015 {published data only}

\*Mullin, A., Dear, B. F., Karin, E., Wootton, B. M., Staples, L. G., Johnston, L., Gandy, M., Fogliati, V., & Titov, N. (2015). The UniWellbeing course: A randomised controlled trial of a transdiagnostic internet-delivered cognitive behavioural therapy (CBT) programme for university students with symptoms of anxiety and depression. *Internet Interventions*, 2(2), 128–136.

#### Munoz 1995 {published data only}

\*Munoz, R. F., Ying, Y. W., Bernal, G., Perez-Stable, E. J., Sorensen, J. L., Hargreaves, W. A., Miranda, J., & Miller, L. S. (1995). Prevention of depression with primary care patients: A randomized controlled trial. *American Journal of Community Psychology*, 23(2), 199–222.

**Murphy 1995 {published data only}**

\*Murphy, G. E., Carney, R. M., Knesevich, M. A., Wetzel, R. D., & Whitworth, P. (1995). Cognitive behavior therapy, relaxation training, and tricyclic antidepressant medication in the treatment of depression. *Psychological Reports*, 77(2), 403–420.

**Musiat 2014 {published data only}**

\*Musiat, P., Conrod, P., Treasure, J., Tylee, A., Williams, C., & Schmidt, U. (2014). Targeted prevention of common mental health disorders in university students: Randomised controlled trial of a transdiagnostic trait-focused web-based intervention. *PLoS One*, 9(4), e93621.

**Naeem 2014 {published data only}**

\*Naeem, F., Sarhandi, I., Gul, M., Khalid, M., Aslam, M., Anbrin, A., Saeed, S., Noor, M., Fatima, G., Minhas, F., Husain, N., & Ayub, M. (2014). A multicentre randomised controlled trial of a carer supervised culturally adapted CBT (CaCBT) based self-help for depression in Pakistan. *Journal of Affective Disorders*, 156, 224–227.

**Narimany 2002 {published data only}**

\*Narimany, M., & Roushan, R. (2002). A study of prevalence of depression and effectiveness of the cognitive-behavior therapy in depressed student. *Iranian Journal of Psychology*, 6(3), 244–254.

**Nauta 2012 {published data only}**

\*Nauta, M. H., Festen, H., Reichart, C. G., Nolen, W. A., Stant, A. D., Bockting, C. L. H., van der Wee, N. J. A., Beekman, A., Doreleijers, T. A. H., Hartman, C. A., de Jong, P. J., & de Vries, S. O. (2012). Preventing mood and anxiety disorders in youth: A multi-centre RCT in the high risk offspring of depressed and anxious patients. *BMC Psychiatry*, 12, 31.

**Naylor 2010 {published data only}**

\*Naylor, E. V., Antonuccio, D. O., Litt, M., Johnson, G. E., Spogen, D. R., Williams, R., McCarthy, C., Lu, M. M., Fiore, D. C., & Higgins, D. L. (2010). Bibliotherapy as a treatment for depression in primary care. *Journal of Clinical Psychology in Medical Settings*, 17(3), 258–271.

**NCT00061698 {published data only}**

\*NCT00061698. Treatment for depressed preadolescent girls. Retrieved 4 June 2003. <https://clinicaltrials.gov/ct2/show/NCT00061698>

**NCT00071513 {published data only}**

\*NCT00071513. Middle school to high school transition project. Retrieved 28 October 2003. <https://clinicaltrials.gov/ct2/show/NCT00071513>

**NCT00374439 {published data only}**

\*NCT00374439. Promoting well-being in teens. Retrieved 11 September 2004. <https://clinicaltrials.gov/ct2/show/nct00374439>

**NCT00611052 {published data only}**

\*NCT00611052. Prevention of adolescent major depression. Retrieved 8 February 2008. <https://clinicaltrials.gov/ct2/show/NCT00611052>

**NCT00641368 {published data only}**

\*NCT00641368. R4Power: An online resilience program for adolescents. Retrieved 24 March 2008. <https://clinicaltrials.gov/ct2/show/NCT00641368>

**NCT01220635 {published data only}**

\*NCT01220635. Prevention of depression within salient adolescent contexts. Retrieved 14 October 2010. <https://clinicaltrials.gov/ct2/show/NCT01220635>

**NCT01228890 {published data only}**

\*NCT01228890. Primary Care Internet-Based Depression Prevention for Adolescents (CATCH-IT). Retrieved 27 October 2010. <https://clinicaltrials.gov/ct2/show/NCT01228890>

**NCT02072304 {published data only}**

\*NCT02072304. Study of web-based cognitive behavioral therapy for depressed Korean adolescents. Retrieved 26 February 2014. <https://clinicaltrials.gov/ct2/show/NCT02072304>

**NCT02266693 {published data only}**

NCT02266693. Transdiagnostic iCBT for depression and anxiety. Retrieved 17 October 2014. <https://clinicaltrials.gov/ct2/show/NCT02266693>

**NCT02332239 {published data only}**

\*NCT02332239. Text-message-based depression prevention for high-risk youth in the ED. Retrieved 6 January 2015. <https://clinicaltrials.gov/ct2/show/results/NCT02332239?view=results>

**NCT02377011 {published data only}**

\*NCT02377011. RCT of the clinical and cost effectiveness of Cognitive Behaviour Therapy (CBT) delivered remotely versus treatment as usual in adolescents and young adults with depression who repeatedly self-harm (eDASH). Retrieved 3 March 2015. <https://clinicaltrials.gov/ct2/show/NCT02377011>

**NCT02780232 {published data only}**

NCT02780232. An internet-based program for prevention and early intervention of adolescent depression. Retrieved 23 May 2016. <https://clinicaltrials.gov/ct2/show/NCT02780232>

**NCT03047512 {published data only}**

\*NCT03047512. Pilot study of an internet-based program for prevention and early intervention of adolescent depression. Retrieved 9 February 2017. <https://clinicaltrials.gov/ct2/show/NCT03047512>

**NCT03438331 {published data only}**

\*NCT03438331. Effects of group cognitive behavioural therapy on comorbid insomnia and depression in youth. Retrieved 19 February 2018. <https://clinicaltrials.gov/ct2/show/NCT03438331>

**NCT03655067 {published data only}**

\*NCT03655067. Internet-based cognitive behavioral therapy for depressive symptoms in adolescents with type 1 diabetes mellitus. Retrieved 31 August 2018. <https://clinicaltrials.gov/ct2/show/NCT03655067>

**NCT04264585 {published data only}**

\*NCT04264585. Internet-delivered Cognitive Behaviour Therapy (ICBT) for post-secondary students. Retrieved 11 February 2020. <https://clinicaltrials.gov/ct2/show/NCT04264585>

**NCT04290754 {published data only}**

\*NCT04290754. PATH 2 purpose: Primary care and community-based prevention of mental disorders in adolescents. Retrieved 2 March 2020. <https://clinicaltrials.gov/ct2/show/NCT04290754>

**Nelson 2006 {published data only}**

\*Nelson, E., Barnard, M., & Cain, S. (2006). Feasibility of telemedicine intervention for childhood depression. *Counselling and Psychotherapy Research: Linking Research with Practice*, 6(3), 191–195.

**Newby 2014 {published data only}**

\*Newby, J. M., Lang, T., Werner-Seidler, A., Holmes, E., & Moulds, M. L. (2014). Alleviating distressing intrusive memories in depression: A comparison between computerised cognitive bias modification and cognitive behavioural education. *Behaviour Research and Therapy*, 56, 60–67.

**Nobel 2012 {published data only}**

\*Nobel, R., Manassis, K., & Wilansky-Traynor, P. (2012). The role of perfectionism in relation to an intervention to reduce anxious and depressive symptoms in children. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 30(2), 77–90.

**Noel 2013 {published data only}**

\*Noel, L. T., Rost, K., & Gromer, J. (2013). Depression prevention among rural preadolescent girls: A randomized controlled trial. *School Social Work Journal*, 38(1), 1–18.

**O'Kearney 2006 {published data only}**

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

**O'Kearney 2009 {published data only}**

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

**Ofoegbu 2020 {published data only}**

\*Ofoegbu, T. O., Asogwa, U., Otu, M. S., Ibenegbu, C., Muhammed, A., & Eze, B. (2020). Efficacy of guided internet-assisted intervention on depression reduction among educational technology students of Nigerian universities. *Medicine*, 99(6), e18774.

**Oikawa 2006 {published data only}**

\*Oikawa, M., & Sakamoto, S. (2006). Effectiveness of a psycho-educational program based on cognitive behavior therapy for prevention of depression in college female students: Promotion of self efficacy for coping with depression. In 29th Australian Association for Cognitive and Behaviour Therapy Annual Conference; 2006 October 18–22; Sydney, NSW (Australia) (p. 26).

**Onuigbo 2019 {published data only}**

\*Onuigbo, L. N., Eseadi, C., Ebifa, S., Ugwu, U. C., Onyishi, C. N., & Oyeoku, E. K. (2019). Effect of rational emotive behavior therapy program on depressive symptoms among university students with blindness in Nigeria. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 37(1), 17–38.

**Ouyang 2001 {published data only}**

\*Ouyang, W. (2001). The effect of sports training with cognitive therapy about mild depression in university students. [Chinese]. *Chinese Journal of Clinical Psychology*, 9(2), 113114112.

**Pace 1993 {published data only}**

\*Pace, T. M., & Dixon, D. N. (1993). Changes in depressive self-schemata and depressive symptoms following cognitive therapy. *Journal of Counselling Psychology*, 40(3), 288–294.

**Pardini 2014 {published data only}**

\*Pardini, J., Scogin, F., Schriver, J., Domino, M., Wilson, D., & LaRocca, M. (2014). Efficacy and process of cognitive bibliotherapy for the treatment of depression in jail and prison inmates. *Psychological Services*, 11(2), 141–152.

**Parker 2016 {published data only}**

\*Parker, A. G., Hetrick, S. E., Jorm, A. F., Mackinnon, A. J., McGorry, P. D., Yung, A. R., Scanlan, F., Stephens, J., Baird, S., Moller, B., & Purcell, R. (2016). The effectiveness of simple psychological and physical activity interventions for high prevalence mental health problems in



young people: A factorial randomised controlled trial. *Journal of Affective Disorders*, 196, 200–209.

#### Patras 2016 {published data only}

\*Patras, J., Martinsen, K. D., Holen, S., Sund, A. M., Adolfsen, F., Rasmussen, L. P., & Neumer, S. P. (2016). Study protocol of an RCT of EMOTION: An indicated intervention for children with symptoms of anxiety and depression. *BMC Psychology*, 4(1), 48.

#### Pattison 2001 {published data only}

\*Pattison, C., & Lynd-Stevenson, R. M. (2001). The prevention of depressive symptoms in children: The immediate and long-term outcomes of a school-based program. *Behaviour Change*, 18(2), 92–102.

#### Peden 2000 {published data only}

\*Peden, A. R., Hall, L. A., Rayens, M. K., & Beebe, L. L. (2000). Reducing negative thinking and depressive symptoms in college women. *Journal of Nursing Scholarship*, 32(2), 145–151.

#### Pile 2018 {published data only}

\*Pile, V., Smith, P., Leamy, M., Blackwell, S. E., Meiser-Stedman, R., Stringer, D., Ryan, E. G., Dunn, B. D., Holmes, E. A., & Lau, J. Y. F. (2018). A brief early intervention for adolescent depression that targets emotional mental images and memories: Protocol for a feasibility randomised controlled trial (IMAGINE trial). *Pilot and Feasibility Studies*, 4(1), 97.

#### Pinto 2013 {published data only}

\*Pinto, M. D., Hickman, Jr. R. L., Clochesy, J., & Buchner, M. (2013). Avatar-based depression self-management technology: Promising approach to improve depressive symptoms among young adults. *Applied Nursing Research*, 26(1), 45–48.

#### Platt 2014 {published data only}

\*Platt, B., Pietsch, K., Krick, K., Oort, F., & Schulte-Korne, G. (2014). Study protocol for a randomised controlled trial of a cognitive-behavioural prevention programme for the children of parents with depression: The PRODO trial. *BMC Psychiatry*, 14, 263.

#### Poppelaars 2016 {published data only}

\*Poppelaars, M., Tak, Y. R., Lichtwarck-Aschoff, A., Engels, R. C. M. E., Lobel, A., Merry, S. N., Lucassen, M. F. G., & Granic, I. (2016). A randomized controlled trial comparing two cognitive-behavioral programs for adolescent girls with subclinical depression: A school-based program (Op Volle Kracht) and a computerized program (SPARX). *Behaviour Research and Therapy*, 80, 33–42.

#### Possel 2006 {published data only}

\*Possel, P., Horn, A. B., & Hautzinger, M. (2006). Comparison of two school based depression prevention programs for adolescents [German]. *Zeitschrift fur klinische Psychologie und Psychotherapie*, 35(2), 109–116.

#### Possel 2008 {published data only}

\*Possel, P., Seemann, S., & Hautzinger, M. (2008). Impact of comorbidity in prevention of adolescent depressive symptoms. *Journal of Counseling Psychology*, 55(1), 106–117.

#### Possel 2013 {published data only}

\*Possel, P., Martin, N. C., Garber, J., & Hautzinger, M. (2013). A randomized controlled trial of a cognitive-behavioral program for the prevention of depression in adolescents compared with nonspecific and no-intervention control conditions. *Journal of Counseling Psychology*, 60(3), 432–438.

#### Proudfoot 2013 {published data only}

\*Proudfoot, J., Clarke, J., Birch, M. R., Whitton, A. E., Parker, G., Manicavasagar, V., Harrison, V., Christensen, H., & Hadzi-Pavlovic, D. (2013). Impact of a mobile phone and web program on symptom and functional outcomes for people with mild-to-moderate depression, anxiety and stress: A randomised controlled trial. *BMC Psychiatry*, 13, 312.

#### Puskar 2003 {published data only}

\*Puskar, K., Sereika, S., & Tusaie-Mumford, K. (2003). Effect of the Teaching Kids to Cope (TKC) program on outcomes of depression and coping among rural adolescents. *Journal of Child and Adolescent Psychiatric Nursing*, 16(2), 71–80.

#### Quilty 2013 {published data only}

\*Quilty, L. C., Mainland, B. J., McBride, C., & Bagby, R. M. (2013). Interpersonal problems and impacts: Further evidence for the role of interpersonal functioning in treatment outcome in major depressive disorder. *Journal of Affective Disorders*, 150(2), 393–400.

#### Rasing 2013 {published data only}

\*Rasing, S. P. A., Creemers, D. H. M., Janssens, J. M. A. M., & Scholte, R. H. J. (2013). Effectiveness of depression and anxiety prevention in adolescents with high familial risk: Study protocol for a randomized controlled trial. *BMC Psychiatry*, 13, 316.

#### Redzic 2014 {published data only}

\*Redzic, N. M. (2014). *The effects of an internet-based psychoeducational program on reducing depressive symptoms in adolescents [Doctoral thesis]*. Palo Alto University.

#### Reivich 1996 {published data only}

\*Reivich, K. (1996). *The prevention of depressive symptoms in adolescents [Doctoral thesis]*. University of Pennsylvania.

#### Ren 2016 {published data only}

\*Ren, Z., Li, X., Zhao, L., Yu, X., Li, Z., Lai, L., Ruan, Y., & Jiang, G. (2016). Effectiveness and mechanism of internet-based self-help

intervention for depression: The Chinese version of MoodGYM. *Acta Psychologica Sinica*, 48(7), 818–832.

#### Rhodes 2014 {published data only}

\*Rhodes, S., Richards, D. A., Ekers, D., McMillan, D., Byford, S., Farrand, P. A., Gilbody, S., Hollon, S. D., Kuyken, W., Martell, C., O'Mahen, H. A., O'Neill, E., Reed, N., Taylor, R. S., Watkins, E. R., & Wright, K. A. (2014). Cost and outcome of behavioural activation versus cognitive behaviour therapy for depression (COBRA): Study protocol for a randomised controlled trial. *Trials*, 15(1), 29.

#### Richards 2003 {published data only}

\*Richards, A., Barkham, M., Cahill, J., Richards, D., Williams, C., & Heywood, P. (2003). PHASE: A randomised, controlled trial of supervised self-help cognitive behavioural therapy in primary care. *British Journal of General Practice*, 53(495), 764–770.

#### Richards 2013 {published data only}

ISRCTN63094649. A comparison of two online cognitive-behavioural interventions for symptoms of depression in a student population: The role of therapist responsiveness [A randomised parallel group controlled trial of online delivered cognitive behavioural therapy treatment with an adult student population]. Retrieved 9 November 2011. <http://isrctn.com/ISRCTN63094649>

\*Richards, D., Timulak, L., & Hevey, D. (2013). A comparison of two online cognitive-behavioural interventions for symptoms of depression in a student population: The role of therapist responsiveness. *Counselling and Psychotherapy Research: Linking Research With Practice*, 13(3), 184–193. <https://doi.org/10.1080/14733145.2012.733715>

#### Rivet-Duval 2011 {published data only}

\*Rivet-Duval, E., Heriot, S., & Hunt, C. (2011). Preventing adolescent depression in Mauritius: A universal school-based program. *Child and Adolescent Mental Health*, 16(2), 86–91. <https://doi.org/10.1111/j.1475-3588.2010.00584.x>

#### Roberts 2003 {published data only}

\*Roberts, C., Kane, R., Thomson, H., Bishop, B., & Hart, B. (2003). The prevention of depressive symptoms in rural school children: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 71(3), 622–628.

#### Roberts 2004 {published data only}

\*Roberts, C., Kane, R., Bishop, B., Matthews, H., & Thomson, H. (2004). The prevention of depressive symptoms in rural school children: A follow-up study. *International Journal of Mental Health Promotion*, 6(3), 4–16.

#### Robinson 2005 {published data only}

\*Robinson, W. L. (2005). *Depression prevention for African-American adolescents*. Research Portfolio Online Reporting Tools(RePORT), National Institutes of Health.

#### Rohde 2001 {published data only}

\*Rohde, P., Clarke, G. N., Lewinsohn, P. M., Seeley, J. R., & Kaufman, N. K. (2001). Impact of comorbidity on a cognitive-behavioral group treatment for adolescent depression. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(7), 795–802.

#### Rohde 2008 {published data only}

\*Rohde, P., Silva, S. G., Tonev, S. T., Kennard, B. D., Vitiello, B., Kratochvil, C. J., Reinecke, M. A., Curry, J. F., Simons, A. D., & March, J. S. (2008). Achievement and maintenance of sustained response during the Treatment for Adolescents With Depression Study continuation and maintenance therapy. *Archives of General Psychiatry*, 65(4), 447–455.

#### Rohde 2012 {published data only}

\*Rohde, P., Stice, E., Gau, J. M., & Marti, C. N. (2012). Reduced substance use as a secondary benefit of an indicated cognitive-behavioral adolescent depression prevention program. *Psychology of Addictive Behaviors*, 26(3), 599–608.

#### Rohde 2012a {published data only}

\*Rohde, P., Stice, E., & Gau, J. M. (2012). Effects of three depression prevention interventions on risk for depressive disorder onset in the context of depression risk factors. *Prevention Science*, 13(6), 584–593.

#### Rossello 1996 {published data only}

\*Rossello, J., Martinez, A., & Bernal, G. (1996). Efecto de "Dosis" en el tratamiento de la depresion en adolescentes puertorriquenos/as. *Revista Argentina de Clinica Psicologica*, 5(3), 217–224.

#### Rossello 2008 {published data only}

\*Rossello, J., Bernal, G., & Rivera-Medina, C. (2008). Individual and group CBT and IPT for Puerto Rican adolescents with depressive symptoms. *Cultural Diversity and Ethnic Minority Psychology*, 14(3), 234–245.

#### Rossello 2012 {published data only}

\*Rossello, J., Bernal, G., & Rivera-Medina, C. (2012). Individual and group CBT and IPT for Puerto Rican adolescents with depressive symptoms. *Journal of Latina/o Psychology*, 1(5), 36–51.

#### Rush 1978 {published data only}

\*Rush, A. J., & Watkins, J. T. (1981). Group versus individual cognitive therapy: A pilot study. *Cognitive Therapy and Research*, 5(1), 95–103.

#### Ruwaard 2009 {published data only}

\*Ruwaard, J., Schrieken, B., Schrijver, M., Broeksteeg, J., Dekker, J., Vermeulen, H., & Lange, A. (2009). Standardized web-based

cognitive behavioural therapy of mild to moderate depression: A randomized controlled trial with a long-term follow-up. *Cognitive Behavior Therapy*, 38(4), 206–221.

#### Saelid 2017 {published data only}

\*Saelid, G. A., & Nordahl, H. M. (2017). Rational emotive behaviour therapy in high schools to educate in mental health and empower youth health. A randomized controlled study of a brief intervention. *Cognitive Behavior Therapy*, 46(3), 196–210.

#### Salamanca-Sanabria 2020 {published data only}

\*Salamanca-Sanabria, A., Richards, D., Timulak, L., Connell, S., Mojica Perilla, M., Parra-Villa, Y., & Castro-Camacho, L. (2020). A culturally adapted cognitive behavioral internet-delivered intervention for depressive symptoms: Randomized controlled trial. *JMIR Mental Health*, 7(1), e13392.

#### Sanchez-Hernandez 2019 {published data only}

\*Sanchez-Hernandez, O., Mendez, F. X., Ato, M., & Garber, J. (2019). Prevention of depressive symptoms and promotion of well-being in adolescents: A randomized controlled trial of the Smile Program. *Anales de Psicologia*, 35(2), 300–313.

#### Saravanan 2017 {published data only}

\*Saravanan, C., Alias, A., & Mohamad, M. (2017). The effects of brief individual cognitive behavioural therapy for depression and home-sickness among international students in Malaysia. *Journal of Affective Disorders*, 220, 108–116.

#### Saulsberry 2013 {published data only}

\*Saulsberry, A., Corden, M. E., Taylor-Crawford, K., Crawford, T. J., Johnson, M., Froemel, J., Walls, A., Fogel, J., Marko-Holguin, M., & Van Voorhees, B. W. (2013). Chicago urban resiliency building (CURB): An internet-based depression-prevention intervention for urban African-American and Latino adolescents. *Journal of Child and Family Studies*, 22(1), 150–160.

#### Saulsberry 2013a {published data only}

\*Saulsberry, A., Marko-Holguin, M., Blomeke, K., Hinkle, C., Fogel, J., Gladstone, T., Bell, C., Reinecke, M., Corden, M., & Van Voorhees, B. W. (2013). Randomized clinical trial of a primary care internet-based intervention to prevent adolescent depression: One-year outcomes. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 22(2), 106.

#### Saulsberry 2020b {published data only}

\*Saw, J. A. (2020). *School-based Cognitive Behavioral Therapy (CBT) intervention for depressive symptomatology: Intervention for Malaysian adolescents [Doctoral thesis]*. Monash University Malaysia.

#### Schramm 2011 {published data only}

\*Schramm, E., Hautzinger, M., Zobel, I., Kriston, L., Berger, M., & Harter, M. (2011). Comparative efficacy of the cognitive behavioral analysis system of psychotherapy versus supportive psychotherapy for early onset chronic depression: Design and rationale of a multisite randomized controlled trial. *BMC Psychiatry*, 11, 134.

#### Scott 1997 {published data only}

\*Scott, C., Tacchi, M. J., Jones, R., & Scott, J. (1997). Acute and one-year outcome of a randomised controlled trial of brief cognitive therapy for major depressive disorder in primary-care. *British Journal of Psychiatry*, 171, 131–134.

#### Scott 1999 {published data only}

\*Scott, C. V. (1999). *Evaluation of cognitive-behavioral group therapy in treating depressive symptoms in prepubertal children: A pilot study [Doctoral thesis]*. Fuller Theological Seminary, School of Psychology.

#### Sekizaki 2019 {published data only}

\*Sekizaki, R., Nemoto, T., Tsujino, N., Takano, C., Yoshida, C., Yamaguchi, T., Katagiri, N., Ono, Y., & Mizuno, M. (2019). School mental healthcare services using internet-based cognitive behaviour therapy for young male athletes in Japan. *Early Intervention in Psychiatry*, 13(1), 79–85.

#### Seligman 2007 {published data only}

\*Seligman, M. E. P., Schulman, P., & Tryon, A. M. (2007). Group prevention of depression and anxiety symptoms. *Behaviour Research and Therapy*, 45(6), 1111–1126.

#### Selmi 1990 {published data only}

\*Selmi, P. M., Klein, M. H., Greist, J. H., Sorrell, S. P., & Erdman, H. P. (1990). Computer-administered cognitive-behavioral therapy for depression. *American Journal of Psychiatry*, 147(1), 51–56.

Selmi, P. M., Klein, M. H., Greist, J. H., Sorrell, S. P., & Erdman, H. P. (1991). Computer-administered therapy for depression. *M.D. Computing: Computers in Medical Practice*, 8(2), 98–102.

#### Shakehnia 2012 {published data only}

\*Shakehnia, F., Amiri, S., Molavi, H., & Behrouz, B. (2012). Effectiveness of training happiness program (THP) on decreasing depressive symptoms and increasing self-esteeming elementary school students in Isfahan. In 5th International Congress of Iranian Association of Child and Adolescents Psychiatry; 2012 Oct 8–10; Tehran Iran (pp. 140–141).

#### Shandley 2010 {published data only}

\*Shandley, K., Austin, D., Klein, B., & Kyrios, M. (2010). An evaluation of 'Reach Out Central': An online gaming program for supporting the mental health of young people. *Health Education Research*, 25(4), 563–574.

**Shatte 1996 {published data only}**

\*Shatte, A. J. (1996). *Prevention of depressive symptoms in adolescents: Issues of dissemination and mechanisms of change* [Doctoral thesis]. University of Pennsylvania.

**Shin 2020 {published data only}**

\*Shin, M. S., Do, R., Cho, M., Shin, H., & Jang, M. (2020). The role of help-seeking attitude in the efficacy of computer-based CBT for depressed adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 59(10 Supplement), S180.

**Shiraishi 2005 {published data only}**

\*Shiraishi, S. (2005). Cognitive therapy for reducing and preventing depressive moods: A practical study with undergraduates. *Japanese Journal of Educational Psychology*, 53(2), 252–262.

**Shirk 2014 {published data only}**

\*Shirk, S. R., Deprince, A. P., Crisostomo, P. S., & Labus, J. (2014). Cognitive behavioral therapy for depressed adolescents exposed to interpersonal trauma: An initial effectiveness trial. *Psychotherapy*, 51(1), 167–179.

**Singhal 2014 {published data only}**

\*Singhal, M., Manjula, M., & Vijay Sagar, K. J. (2014). Development of a school-based program for adolescents at-risk for depression in India: Results from a pilot study. *Asian Journal of Psychiatry*, 10, 56–61.

**Smith 2015 {published data only}**

ISRCTN83507297. The effectiveness of a new computerised treatment, "Stressbusters," for young people (aged 11 to 16 years) with symptoms of depression [Randomised controlled trial (RCT) comparing a computerised Cognitive Behavioural Therapy (CBT) program, called "Stressbusters," to a wait-list control condition, in young people aged 11–16 years]. Retrieved 21 December 2011. <http://isrctn.com/ISRCTN83507297>

\*Smith, P., Scott, R., Eshkevari, E., Jatta, F., Leigh, E., Harris, V., Robinson, A., Abeles, P., Proudfoot, J., Verduyn, C., & Yule, W. (2015). Computerised CBT for depressed adolescents: Randomised controlled trial. *Behaviour Research and Therapy*, 73, 104–110.

**Snow 2000 {published data only}**

\*Snow, A. (2000). *The effects of group cognitive-behavioral therapy on reducing the relapse of adolescent depression* [Dissertation]. Kalamazoo College.

**Songprakun 2012 {published data only}**

Songprakun, W., & McCann, T. V. (2012). Effectiveness of a self-help manual on the promotion of resilience in individuals with depression in Thailand: A randomised controlled trial. *BMC Psychiatry*, 12, 12.

Songprakun, W., & McCann, T. V. (2012). Evaluation of a bibliotherapy manual for reducing psychological distress in people with depression: A randomized controlled trial. *Journal of Advanced Nursing*, 68(12), 2674–2684.

\*Songprakun, W., & McCann, T. V. (2012). Evaluation of a cognitive behavioural self-help manual for reducing depression: A randomized controlled trial. *Journal of Psychiatric and Mental Health Nursing*, 19(7), 647–653.

**Spence 2003 {published data only}**

Spence, S. H., Sheffield, J., & Donovan, C. (2000). Problem Solving for Life: Evaluation of a program to prevent depression among adolescents. In 28th Annual Conference of the British Association for Behavioural and Cognitive Psychotherapies; 2000 July 19–22, London.

\*Spence, S. H., Sheffield, J. K., & Donovan, C. L. (2003). Preventing adolescent depression: An evaluation of the problem solving for life program. *Journal of Consulting and Clinical Psychology*, 71(1), 3–13.

**Spirito 2015 {published data only}**

\*Spirito, A., Wolff, J. C., Seaboyer, L. M., Hunt, J., Esposito-Smythers, C., Nugent, N., Zlotnick, C., & Miller, I. (2015). Concurrent treatment for adolescent and parent depressed mood and suicidality: Feasibility, acceptability, and preliminary findings. *Journal of Child and Adolescent Psychopharmacology*, 25(2), 131–139.

**Stallard 2010 {published data only}**

ISRCTN19083628. A single blind randomised controlled trial to determine the effectiveness of group Cognitive Behaviour Therapy (CBT) in the prevention of depression in high risk adolescents [ISRCTN19083628]. Retrieved 28 September 2007. <https://www.isrctn.com/ISRCTN19083628>

\*Stallard, P., Montgomery, A. A., Araya, R., Anderson, R., Lewis, G., Sayal, K., Buck, R., Millings, A., & Taylor, J. A. (2010). Protocol for a randomised controlled trial of a school based cognitive behaviour therapy (CBT) intervention to prevent depression in high risk adolescents (PROMISE). *Trials*, 11, 114.

**Stallard 2011 {published data only}**

\*Stallard, P., Richardson, T., Velleman, S., & Attwood, M. (2011). Computerized CBT (Think, Feel, Do) for depression and anxiety in children and adolescents: Outcomes and feedback from a pilot randomized controlled trial. *Behavioural and Cognitive Psychotherapy*, 39(3), 273–284.

**Stant 2008 {published data only}**

\*Stant, A. D., Ten Vergert, E. M., den Boer, P. C., & Wiersma, D. (2008). Cost-effectiveness of cognitive self-therapy in patients with depression and anxiety disorders. *Acta Psychiatrica Scandinavica*, 117(1), 57–66.

**Stark 1987 {published data only}**

\*Stark, K. D., Reynolds, W. M., & Kaslow, N. J. (1987). A comparison of the relative efficacy of self-control therapy and a behavioral

problem-solving therapy for depression in children. *Journal of Abnormal Child Psychology*, 15(1), 91–113.

Stark, K. D. (1985). *A comparison of the relative efficacy of self-control therapy and behavior therapy for the reduction of depression in children [Doctoral thesis]*. The University of Wisconsin.

#### Stikkelbroek 2013 {published data only}

\*Stikkelbroek, Y., Bodden, D. H. M., Dekovic, M., & van Baar, A. L. (2013). Effectiveness and cost effectiveness of cognitive behavioral therapy (CBT) in clinically depressed adolescents: Individual CBT versus treatment as usual (TAU). *BMC Psychiatry*, 13, 314.

#### Stiles-Shields 2014 {published data only}

\*Stiles-Shields, C., Kwasny, M. J., Cai, X., & Mohr, C. (2014). Comorbid anxiety as a differential treatment predictor for telephone versus face-to-face administered cognitive behavioral therapy for depression. *Depression and Anxiety*, 31(11), 934–940.

#### Stoppelbein 2003 {published data only}

\*Stoppelbein, L. (2003). *Primary prevention: An evaluation of a high-school based cognitive-behavioral program [Doctoral thesis]*. University of Alabama.

#### Straub 2015 {published data only}

\*Straub, J., Plener, P. L., Keller, F., Fegert, J. M., Sprober, N., & Kolch, M. G. (2015). MICH-A brief, manualized cognitive behavioral group therapy for the treatment of depression in adolescents: A randomized controlled trial. *Kindheit und Entwicklung*, 24(3), 189–198.

Straub, J., Sprober, N., Plener, P. L., Fegert, J. M., Bonenberger, M., & Koelch, M. G. (2014). A brief cognitive-behavioural group therapy programme for the treatment of depression in adolescent outpatients: A pilot study. *Child and Adolescent Psychiatry and Mental Health*, 8(1), 9.

Straub, J. (2013). MICH - evaluation of a manualised, psychosocial intervention programme for depressed adolescents: Pilot study results of outpatients and inpatients. *European Child & Adolescent Psychiatry*, 22(2 Suppl. 1), S144–S145.

#### Szigethy 2007 {published data only}

\*Szigethy, E., Kenney, E., Carpenter, J., Hardy, D. M., Fairclough, D., Bousvaros, A., Keljo, D., Weisz, J., Beardslee, W. R., Noll, R., & DeMaso, D. R. (2007). Cognitive-behavioral therapy for adolescents with inflammatory bowel disease and subsyndromal depression. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46(10), 1290–1298.

#### Szigethy 2014 {published data only}

\*Szigethy, E., Bujoreanu, S. I., Youk, A. O., Weisz, J., Benhayon, D., Fairclough, D., Ducharme, P., Gonzalez-Heydrich, J., Keljo, D., Srinath, A., Bousvaros, A., Kirshner, M., Newara, M., Kupfer, D., & DeMaso, D. R. (2014). Randomized efficacy trial of two psychotherapies for depression in youth with inflammatory bowel disease. *Journal of the American Academy of Child and Adolescent Psychiatry*, 53(7), 726–735.

#### Tak 2016 {published data only}

\*Tak, Y. R., Lichtwarck-Aschoff, A., Gillham, J. E., Van Zundert, R. M. P., & Engels, R. C. M. E. (2016). Universal school-based depression prevention 'Op Volle Kracht': A longitudinal cluster randomized controlled trial. *Journal of Abnormal Child Psychology*, 44(5), 949–961.

#### Takagaki 2016 {published data only}

\*Takagaki, K., Okamoto, Y., Jinnin, R., Mori, A., Nishiyama, Y., Yamamura, T., Yokoyama, S., Shiota, S., Okamoto, Y., Miyake, Y., Ogata, A., Kunisato, Y., Shimoda, H., Kawakami, N., Furukawa, T. A., & Yamawaki, S. (2016). Behavioral activation for late adolescents with subthreshold depression: A randomized controlled trial. *European Child and Adolescent Psychiatry*, 25(11), 1171–1182.

#### Tellier 1999 {published data only}

\*Tellier, J. E. (1998). *Anger and depression among incarcerated juvenile delinquents: A pilot intervention [Doctoral thesis]*. The Wright Institute.

#### Thomas 1987 {published data only}

\*Thomas, J. R., Petry, R. A., & Goldman, J. R. (1987). Comparison of cognitive and behavioral self-control treatments of depression. *Psychological Reports*, 60(3 Pt 1), 975–982.

#### Thompson 2000 {published data only}

\*Thompson, E. A., Eggert, L. L., & Herting, J. R. (2000). Mediating effects of an indicated prevention program for reducing youth depression and suicide risk behaviors. *Suicide & Life-Threatening Behavior*, 30(3), 252–271.

#### Titov 2010 {published data only}

\*Titov, N., Andrews, G., Davies, M., McIntyre, K., Robinson, E., & Solley, K. (2010). Internet treatment for depression: A randomized controlled trial comparing clinician vs. technician assistance. *PLoS One*, 5(6), e10939.

#### Tomyn 2016 {published data only}

\*Tomyn, J. D., Fuller-Tyszkiewicz, M., Richardson, B., & Colla, L. (2016). A comprehensive evaluation of a universal school-based depression prevention program for adolescents. *Journal of Abnormal Child Psychology*, 44, 1621–1633.

#### Topper 2017 {published data only}

\*Topper, M., Emmelkamp, P. M. G., Watkins, E., & Ehring, T. (2017). Prevention of anxiety disorders and depression by targeting excessive worry and rumination in adolescents and young adults: A randomized controlled trial. *Behaviour Research and Therapy*, 90, 123–136.

#### Treatment for Adolescents With Depression Study Team 2009 {published data only}

\*Treatment for Adolescents With Depression Study Team, March, J., Silva, S., Curry, J., Wells, K., Fairbank, J., Burns, B., Domino, M.,

Vitiello, B., Severe, J., Riedal, K., Goldman, M., Feeny, N., Findling, R., Stull, S., Baab, S., Weller, E. B., Robbins, M., Weller, R. A., Jessani, N., Waslick, B., Sweeney, M., Dublin, R., Walkup, J., Ginsburg, G., Kastelic, E., Koo, H., Kratochvil, C., May, D., LaGrone, R., Vaughan, B., Albano, A. M., Hirsch, G. S., Podniesinki, E., Chu, A., Reincecke, M., Leventhal, B., Rogers, G., Jacobs, R., Pathak, S., Wells, J., Lavanier, S. A., Danielyan, A., Rohde, P., Simons, A., Grimm, J., Frank, S., Emslie, G., Kennard, B., Hughes, C., Mayes, T. L., Rosenberg, D., Benazon, N., Butkus, M., & Bartoi, M. (2009). The Treatment for Adolescents With Depression Study (TADS): Outcomes over 1 year of naturalistic follow-up. *American Journal of Psychiatry*, *166*(10), 1141–1149.

### Treutiger 2013 {published data only}

\*Treutiger, B.-M., & Lindberg, L. (2013). Prevention of depressive symptoms among adolescent girls. In A.-K. Andershed (Ed.), *Girls at risk: Swedish Longitudinal Research on Adjustment* (pp. 57–78). Springer Science+Business Media.

### van der Zanden 2011 {published data only}

\*van der Zanden, R. A., Kramer, J. J., & Cuijpers, P. (2011). Effectiveness of an online group course for adolescents and young adults with depressive symptoms: Study protocol for a randomized controlled trial. *Trials*, *12*, 196.

### van der Zanden 2012 {published data only}

\*van der Zanden, R., Kramer, J., Gerrits, R., & Cuijpers, P. (2012). Effectiveness of an online group course for depression in adolescents and young adults: A randomized trial. *Journal of Medical Internet Research*, *14*(3), e86.

### van der Zanden 2014 {published data only}

\*van der Zanden, R., Galindo-Garre, F., Curie, K., Kramer, J., & Cuijpers, P. (2014). Online cognitive-based intervention for depression: Exploring possible circularity in mechanisms of change. *Psychological Medicine*, *44*(6), 1159–1170.

### van Rensburg 1988 {published data only}

\*van Rensburg, J., & Marthinus, P. (1988). *Treatment of depression with cognitive - Behaviour therapy and vitamin B6 (Afrikaans text)*. University of Pretoria (South Africa).

### Van Schaik 2008 {published data only}

\*Van Schaik, A. M. (2008). No added value of cognitive behavior therapy in adolescents with depression. *Nederlands Tijdschrift voor Geneeskunde*, *152*(1), 56.

### van Straten 2008 {published data only}

\*van Straten, A., Cuijpers, P., & Smits, N. (2008). Effectiveness of a web-based self-help intervention for symptoms of depression, anxiety, and stress: Randomized controlled trial. *Journal of Medical Internet Research*, *10*(1), e7.

### Van Voorhees 2008 {published data only}

Van Voorhees, B. W., Fogel, J., Pomper, B. E., Marko, M., Reid, N., Watson, N., Larson, J., Bradford, N., Fagan, B., & Zuckerman, S. (2009). Adolescent dose and ratings of an Internet-based depression prevention program: A randomized trial of primary care physician brief advice versus a motivational interview. *Journal of Cognitive and Behavioural Psychotherapies*, *9*(1), 1–19.

Van Voorhees, B. W., Fogel, J., Reinecke, M. A., Gladstone, T., Stuart, S., Gollan, J., Bradford, N., Domanico, R., Fagan, B., & Ross, R. (2009). Randomized clinical trial of an Internet-based depression prevention program for adolescents (Project CATCH-IT) in primary care: Twelve-week outcomes. *Journal of Developmental and Behavioral Pediatrics*, *30*(1), 23.

\*Van Voorhees, B. W., Vanderplough-Booth, K., Fogel, J., Gladstone, T., Bell, C., Stuart, S., Gollan, J., Bradford, N., Domanico, R., & Fagan, B. (2008). Integrative internet-based depression prevention for adolescents: A randomized clinical trial in primary care for vulnerability and protective factors. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *17*(4), 184–196.

### Vernmark 2010 {published data only}

\*Vernmark, K., Lenndin, J., Bjarehed, J., Carlsson, M., Karlsson, J., Oberg, J., Carlbring, P., Eriksson, T., & Andersson, G. (2010). Internet administered guided self-help versus individualized e-mail therapy: A randomized trial of two versions of CBT for major depression. *Behaviour Research and Therapy*, *48*(5), 368–376.

### Vitiello 2004 {published data only}

Vitiello, B. (2004). The Treatment of Adolescents with Depression Study (TADS): Efficacy results. *Neuropsychopharmacology*, *29*(Suppl. 1), S20.

### Wagner 2014 {published data only}

\*Wagner, B., Horn, A. B., & Maercker, A. (2014). Internet-based versus face-to-face cognitive-behavioral intervention for depression: A randomized controlled non-inferiority trial. *Journal of Affective Disorders*, *152-154*(1), 113–121.

### Walker 2014 {published data only}

\*Walker, III J. V., & Lampropoulos, G. K. (2014). A comparison of self-help (homework) activities for mood enhancement: Results from a brief randomized controlled trial. *Journal of Psychotherapy Integration*, *24*(1), 46–64.

### Wang 2016 {published data only}

\*Wang, Y., Li, S., Liu, H., Liu, D., Ma, Q., Cui, H., & Zhu, B. (2016). The roles of family environment, personality and coping styles in adolescent depression. *International Journal of Clinical and Experimental Medicine*, *9*(2), 4989–4994.

### Ward 2000 {published data only}

\*Ward, E., King, M., Lloyd, M., Bower, P., Sibbald, B., Farrelly, S., Gabbay, M., TARRIER, N., & Addington-Hall, J. (2000). Randomised controlled trial of non-directive counselling, cognitive-behaviour

therapy, and usual general practitioner care for patients with depression. I: Clinical effectiveness. *BMJ*, 321(7273), 1383–1388.

### Weersing 2003 {published data only}

\*Weersing, V. R., & Brent, D. A. (2003). Cognitive-behavioral therapy for adolescent depression: Comparative efficacy, mediation, moderation and effectiveness. In *Evidence-based psychotherapies for children and adolescents* (pp. 135–147). Guilford Press.

### Weersing 2017 {published data only}

NCT01147614. (2017). Brief Cognitive Behavioral Therapy (CBT) for pediatric anxiety and depression in primary care. Retrieved 22 June 2010. <https://clinicaltrials.gov/ct2/show/NCT01147614>

\*Weersing, V. R., Brent, D. A., Rozenman, M. S., Gonzalez, A., Jeffreys, M., Dickerson, J. F., Lynch, F. L., Porta, G., & Iyengar, S. (2017). Brief behavioral therapy for pediatric anxiety and depression in primary care: A randomized clinical trial. *JAMA Psychiatry*, 74(6), 571–578.

### Weinberg 1978 {published data only}

\*Weinberg, L. (1978). *Behaviorally and cognitively oriented approaches to the alleviation of depressive symptoms in college students [Doctoral thesis]*. State University of New York.

### Weisz 1997 {published data only}

\*Weisz, J. R., Thurber, C. A., Sweeney, L., Proffitt, V. D., & LeGagnoux, G. L. (1997). Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training. *Journal of Consulting and Clinical Psychology*, 65(4), 703–707.

### Weisz 2009 {published data only}

\*Weisz, J. R., Southam-Gerow, M. A., Gordis, E. B., Connor-Smith, J. K., Chu, B. C., Langer, D. A., McLeod, B. D., Jensen-Doss, A., Updegraff, A., & Weiss, B. (2009). Cognitive-behavioral therapy versus usual clinical care for youth depression: An initial test of transportability to community clinics and clinicians. *Journal of Consulting and Clinical Psychology*, 77(3), 383–396.

### Weisz 2012 {published data only}

\*Weisz, J. R., Chorpita, B. F., Palinkas, L. A., Schoenwald, S. K., Miranda, J., Bearman, S. K., Daleiden, E. L., Ugueto, A. M., Ho, A., Martin, J., Gray, J., Alleyne, A., Langer, D. A., Southam-Gerow, M. A., & Gibbons, R. D. (2012). Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth: A randomized effectiveness trial. *Archives of General Psychiatry*, 69(3), 274–282.

### Whittaker 2017 {published data only}

ACTRN12609000405213. Memo multimedia mobile phone lifeskills programme for teenagers [A randomised controlled trial of a multimedia mobile phone programme to reduce depressive symptoms in adolescents compared to an attention control mobile phone

programme]. Retrieved 6 March 2009. <https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?ID=83667>

Whittaker, R., Merry, S., Stasiak, K., McDowell, H., Doherty, I., Shepherd, M., Dorey, E., Parag, V., Ameratunga, S., & Rodgers, A. (2012). MEMO—A mobile phone depression prevention intervention for adolescents: Development process and postprogram findings on acceptability from a randomized controlled trial. *Journal of Medical Internet Research*, 14(1), e13.

\*Whittaker, R., Stasiak, K., McDowell, H., Doherty, I., Shepherd, M., Chua, S., Dorey, E., Parag, V., Ameratunga, S., Rodgers, A., & Merry, S. (2017). MEMO: An mHealth intervention to prevent the onset of depression in adolescents: A double-blind, randomised, placebo-controlled trial. *Journal of Child Psychology and Psychiatry*, 58(9), 1014–1022.

### Wierzbicki 1987 {published data only}

\*Wierzbicki, M., & Barlett, T. S. (1987). The efficacy of group and individual cognitive therapy for mild depression. *Cognitive Therapy and Research*, 11(3), 337–342.

### Wilde 1994 {published data only}

\*Wilde, J. (1994). The effects of the Let's Get Rational board game on rational thinking, depression, and self-acceptance in adolescents. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 12(3), 189–196.

### Willemse 2004 {published data only}

\*Willemse, G. R., Smit, F., Cuijpers, P., & Tiemens, B. G. (2004). Minimal-contact psychotherapy for sub-threshold depression in primary care: Randomised trial. *British Journal of Psychiatry*, 185, 416–421.

### Williams 1988 {published data only}

\*Williams, J. A. (1988). *The role of coping skills in the treatment of depressed adolescents [Doctoral thesis]*. University of Oregon.

### Wong 2008 {published data only}

\*Wong, D. F. (2008). Cognitive and health-related outcomes of group cognitive behavioural treatment for people with depressive symptoms in Hong Kong: Randomized wait-list control study. *Australian and New Zealand Journal of Psychiatry*, 42(8), 702–711.

### Wood 1996 {published data only}

Harrington, R. (1996). Controlled trial of a brief cognitive-behavioural intervention in adolescents parents with depressive disorders. *European Psychiatry*, 11(Suppl. 4), 158s.

\*Wood, A., Harrington, R., & Moore, A. (1996). Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. *Child Psychology & Psychiatry & Allied Disciplines*, 37(6), 737–746.

Wood, A., Harrington, R., & Moore, A. (1996). Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. *Child Psychology & Psychiatry & Allied Disciplines*, 37(6), 737–746.

**Wood 1999 {published data only}**

\*Wood, A. (1999). *Child and adolescent depressive disorder: A controlled trial of cognitive behavioural intervention [Doctoral thesis]* Ann Arbor. The University of Manchester (United Kingdom).

**Wright 2005 {published data only}**

\*Wright, J. H., Wright, A. S., Albano, A. M., Basco, M. R., Goldsmith, L. J., Raffield, T., & Otto, M. W. (2005). Computer-assisted cognitive therapy for depression: Maintaining efficacy while reducing therapist time. *American Journal of Psychiatry*, 162(6), 1158–1164.

**Xu 2017 {published data only}**

\*Xu, L., & Liu, H. (2017). Effects of Rational Emotive Behavior Therapy (REBT) intervention program on mental health in female college students. *NeuroQuantology*, 15(4), 156–161.

**Yang 2014 {published data only}**

\*Yang, Y., Yang, R.-M., Lin, X.-X., Xiao, J., Oei, T. P., & Cui, L.-X. (2014). Intervention effects of cognitive-behavioral group counseling in college students with depression symptom. *Chinese Mental Health Journal*, 28(12), 913–919.

**Yu 2002 {published data only}**

\*Yu, D. L., & Seligman, M. E. (2002). Preventing depressive symptoms in Chinese children. *Prevention & Treatment*, 5(9), 9.

**Yusoff 2015 {published data only}**

\*Yusoff, M. S. B., & Esa, A. R. (2015). A DEAL-based intervention for the reduction of depression, denial, self-blame and academic stress: A randomized controlled trial. *Journal of Taibah University Medical Sciences*, 10(1), 82–92.

**Zamirinejad 2014 {published data only}**

\*Zamirinejad, S., Hojjat, S. K., Golzari, M., Borjali, A., & Akaberi, A. (2014). Effectiveness of resilience training versus cognitive therapy on reduction of depression in female Iranian college students. *Issues in Mental Health Nursing*, 35(6), 480–488.

**Zaunmüller 2014 {published data only}**

\*Zaunmüller, L., Lutz, W., & Strauman, T. J. (2014). Affective impact and electrocortical correlates of a psychotherapeutic microintervention: An ERP study of cognitive restructuring. *Psychotherapy Research*, 24(5), 550–564.

**Zemestani 2017 {published data only}**

\*Zemestani, M., Imani, M., & Ottaviani, C. (2017). A preliminary investigation on the effectiveness of unified and transdiagnostic cognitive behavior therapy for patients with comorbid depression and anxiety. *International Journal of Cognitive Therapy*, 10(2), 175–185.

**Zou 2017 {published data only}**

\*Zou, Y., Li, H., Shi, C., Lin, Y., Zhou, H., & Zhang, J. (2017). Efficacy of psychological pain theory-based cognitive therapy in suicidal patients with major depressive disorder: A pilot study. *Psychiatry Research*, 249, 23–29.

**REFERENCES TO STUDIES AWAITING ASSESSMENT****Demir 2019 {published data only}**

\*Demir, S. (2019). Cognitive behavioral therapy-based group counseling (CBTBGC). [ClinicalTrials.gov](https://clinicaltrials.gov) Identifier: NCT04192721.

**NCT04111887 {published data only}**

\*NCT04111887. Pilot study comparing two versions of group cognitive-behavioral indicated prevention programs. Retrieved 1 October 2019. <https://clinicaltrials.gov/ct2/show/NCT04111887>

**NCT04117789 {published data only}**

\*NCT04117789. Feasibility of internet-delivered cbt for adolescents with depression. Retrieved 7 October 2019. <https://clinicaltrials.gov/ct2/show/NCT04117789>

**NCT04192721 {published data only}**

\*NCT04192721. Cognitive behavioral therapy-based group counseling. Retrieved 10 December 2019. <https://clinicaltrials.gov/ct2/show/NCT04192721>

**Oregon Research Institute 2018 {published data only}**

\*Oregon Research Institute. (2018). Pilot study comparing two versions of group cognitive-behavioral indicated prevention programs. [ClinicalTrials.gov](https://clinicaltrials.gov) Identifier: NCT04111887.

**Salamanca-Sanabria 2018 {published data only}**

\*Salamanca-Sanabria, A., Richards, D., Timulak, L., Castro-Camacho, L., Mojica-Perilla, M., & Parra-Villa, Y. (2018). Assessing the efficacy of a culturally adapted cognitive behavioural internetdelivered treatment for depression: Protocol for a randomised controlled trial. *BMC Psychiatry*, 18, 53. <https://doi.org/10.1186/s12888-018-1634-x>

**Yokomitsu 2020 {published data only}**

\*Yokomitsu, K., Tomonari, I., Sekiguchi, M., Shimizu, A., Matsuoka, H., Merry, S. N., & Stasiak, K. (2020). Gamified mobile computerized cognitive behavioral therapy for Japanese university students with depressive symptoms: Protocol for a randomized controlled trial. *JMIR Research Protocols*, 9(4), e15164. <https://doi.org/10.2196/15164>



## REFERENCES TO ONGOING STUDIES

**Baldofski 2019 {unpublished data only}**

\*Baldofski, S., Kohls, E., Bauer, S., Becker, K., Bilic, S., Eschenbeck, H., Kaess, M., Moessner, M., Salize, H. J., Diestelkamp, S., Vob, E., Rummel-Kluge, C., & the ProHEAD consortium. (2019). Efficacy and cost-effectiveness of two online interventions for children and adolescents at risk for depression (E.motion trial): Study protocol for a randomized controlled trial within the ProHEAD consortium. *Trials*, 20, 53. <https://doi.org/10.1186/s13063-018-3156-8>

DRKS00014668. ProHEAD – Promoting Help-seeking using E-technology for Adolescents. Sub-project 4: Efficacy and cost-effectiveness of two online interventions for children and adolescents at risk for depression [ProHEAD – Promoting Help-seeking using E-technology for Adolescents. Sub-project 4: Efficacy and cost-effectiveness of two online interventions for children and adolescents at risk for depression – E.motion trial]. Retrieved 4 May 2018. <http://www.drks.de/DRKS00014668>

**IRCT20160404027216N7 {unpublished data only}**

\*IRCT20160404027216N7. Effect of Cognitive-Behavior Therapy on the prevention of depression [The Effect of Cognitive-Behavior Therapy on the prevention of depression in nursing students]. Retrieved 8 December 2018. <http://en.irct.ir/trial/33315>

**IRCT20171231038158N1 {published data only}**

\*IRCT20171231038158N1. A comparative study on the efficacy of a positive cognitive-behavioral therapy and a cognitive behavioral therapy, in depression, subjective well-being, resiliency, self-efficacy and self-esteem for adolescences with depression signs. Retrieved 11 January 2018. <https://en.irct.ir/trial/28734>

## ADDITIONAL REFERENCES

**American Psychiatric Association 2013**

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)*. American Psychiatric Publishing.

**Andersson 2009**

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. *Cognitive Behaviour Therapy*, 38(4), 196–205.

**Arnberg 2014**

Arnberg, F. K., Linton, S. J., Hultcrantz, M., Heintz, E., & Jonsson, U. (2014). Internet-delivered psychological treatments for mood and anxiety disorders: A systematic review of their efficacy, safety, and cost-effectiveness. *PLoS One*, 9(5), e98118. <https://doi.org/10.1371/journal.pone.0098118>

**Balázs 2012**

Balázs, J., Miklósi, M., Keresztény, Á., Apter, A., Bobes, J., Brunner, R., Corcoran, P., Cosman, D., Haring, C., Kahn, J.-P., Postuvan, V., Resch, F., Varnik, A., Sarchiapone, M., Hoven, C., Wasserman, C.,

Carli, V., & Wasserman, D. (2012). P-259 – Prevalence of adolescent depression in Europe. *European Psychiatry*, 27(1), 1.

**Bennett 2019**

Bennett, S. D., Cuijpers, P., Ebert, D. D., Smith, M. M., Coughtrey, A. E., Heyman, I., Manzotti, G., & Shafraan, R. (2019). Practitioner review: Unguided and guided self-help interventions for common mental health disorders in children and adolescents: A systematic review and meta-analysis. *Journal of Child Psychology and Psychiatry*, 60(8), 828–847. <https://doi.org/10.1111/jcpp.13010>

**Bergin 2020**

Bergin, A. D., Vallejos, E. P., Davies, E. B., Daley, D., Ford, T., Harold, G., Hetrick, S., Kidner, M., Long, Y., Merry, S., Morriss, R., Sayal, K., Sonuga-Barke, E., Robinson, J., Torous, J., & Hollis, C. (2020). Preventive digital mental health interventions for children and young people: A review of the design and reporting of research. *NPJ Digital Medicine*, 3, 133. <https://doi.org/10.1038/s41746-020-00339-7>

**Bertha 2013**

Bertha, E. A., & Balázs, J. (2013). Subthreshold depression in adolescence: A systematic review. *European Child & Adolescent Psychiatry*, 22(10), 589–603.

**Birmaher 2007**

Birmaher, B., & Brent, D. (2007). Practice parameter for the assessment and treatment of children and adolescents with depressive disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(11), 1503–1526.

**Bjornstad 2020**

Bjornstad, G. J., Sonthalia, S., Rouse, B., Timmons, L., Whybra, L., & Axford, N. (2020). PROTOCOL: A comparison of the effectiveness of cognitive behavioural interventions based on delivery features for elevated symptoms of depression in adolescents. *Campbell Systematic Reviews*, 16, e1073. <https://doi.org/10.1002/cl2.1073>

**Calear 2010**

Calear, A. L., & Christensen, H. (2010). Review of internet-based prevention and treatment programs for anxiety and depression in children and adolescents. *Medical Journal of Australia*, 192(11), S12.

**Callahan 2012**

Callahan, P., Liu, P., Purcell, R., Parker, A. G., & Hetrick, S. E. (2012). Evidence map of prevention and treatment interventions for depression in young people. *Depression Research and Treatment*, 2012, 1–11.

**CBHSQ 2015**

Center for Behavioral Health Statistics and Quality. *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and*

*Health*. 2015 September, HHS Publication No.: SMA 15-4927, NSDUH Series H-50. Retrieved from [www.samhsa.gov/data/](http://www.samhsa.gov/data/)

### Chaimani 2015

Chaimani, A., & Salanti, G. (2015). Visualizing assumptions and results in network meta-analysis: The network graphs package. *Stata Journal*, 15(4), 905–950.

### Cohen 2010

Cohen, P., Cohen, J., Aiken, L. S., & West, S. G. (10 June 2010). The problem of units and the circumstance for POMP. *Multivariate Behavioral Research*, 34(3), 315–346.

### Cuijpers 2010

Cuijpers, P., Donker, T., van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological medicine*, 40(12), 1943–1957.

### Cuijpers 2019

Cuijpers, P., Noma, H., Karyotaki, E., Cipriani, A., & Furukawa, T. A. (2019). Effectiveness and acceptability of cognitive behavior therapy delivery formats in adults with depression: A network meta-analysis. *JAMA Psychiatry*, 76(7), 700–707. <https://doi.org/10.1001/jamapsychiatry.2019.0268>

### Cuijpers 2021

Cuijpers, P., Pineda, B. S., Ng, M. Y., Weisz, J. R., Muñoz, R. F., Gentili, C., Quero, S., & Karyotaki, E. (2021). A meta-analytic review: Psychological treatment of subthreshold depression in children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 60(9), 1072–1084. <https://doi.org/10.1016/j.jaac.2020.11.024>

### Curry 2006

Curry, J., Rohde, P., Simons, A., Silva, S., Vitiello, B., Kratochvil, C., Reinecke, M., Feeny, N., Wells, K., Pathak, S., Weller, E., Rosenberg, D., Kennard, B., Robins, M., Ginsburg, G., March, J., & the TADS Team. (2006). Predictors and moderators of acute outcome in the Treatment for Adolescents with Depression Study (TADS). *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(12), 1427–1439.

### Deeks 2011

Deeks, J. J., Higgins, J. P., & Altman, D. G. (2011). Chapter 9: Analysing data and undertaking meta-analyses. In J. P. T. Higgins, & S. Green (Eds.), *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 (updated March 2011)*. The Cochrane Collaboration. <http://www.handbook.cochrane.org>

### Dias 2010

Dias, S., Welton, N. J., Caldwell, D. M., & Ades, A. E. (2010). Checking consistency in mixed treatment comparison meta-analysis. *Statistics in Medicine*, 29(7–8), 932–944.

### Dobson 2001

Dobson, K. S., & Dozoi, D. J. (2001). Historical and philosophical bases of the cognitive-behavioral therapies. In K. S. Dobson (Ed.), *Handbook of cognitive-behavioral therapies* (2nd ed., pp. 3–38). Guilford Press.

### Ebert 2015

Ebert, D. D., Zarski, A. C., Christensen, H., Stikkelbroek, Y., Cuijpers, P., & Berking, M. (2015). Internet and computer-based cognitive behavioral therapy for anxiety and depression in youth: A meta-analysis of randomized controlled outcome trials. *PLoS One*, 10(3), e0119895.

### Ellis 2003

Ellis, A. (2003). Similarities and differences between rational emotive behavior therapy and cognitive therapy. *Journal of Cognitive Psychotherapy*, 17(3), 225–240. <https://doi.org/10.1891/jcop.17.3.225.52535>

### Essau 2009

Essau, C. A., & Weining, C. (2009). Epidemiology, comorbidity, and course of adolescent depression. In C. A. Essau (Ed.), *Treatments for adolescent depression: Theory and practice* (pp. 3–25). Oxford University Press. <https://doi.org/10.1093/med/psych/9780199226504.003.0001>

### Fergusson 2005

Fergusson, D. M., Horwood, L., Ridder, E. M., & Beautrais, A. L. (2005). Subthreshold depression in adolescence and mental health outcomes in adulthood. *Archives of General Psychiatry*, 61(1), 66–72.

### Fleming 2014

Fleming, T. M., Cheek, C., Merry, S. N., Thabrew, H., Bridgman, H., & Stasiak, K. (2014). Serious games for the treatment or prevention of depression: A systematic review. *Revista de Psicopatologia y Psicología Clínica*, 19(3), 227–242.

### Fleming 2018

Fleming, T., Bavin, L., Lucassen, M., Stasiak, K., Hopkins, S., & Merry, S. (2018). Beyond the trial: Systematic review of real-world uptake and engagement with digital self-help interventions for depression, low mood, or anxiety. *Journal of Medical Internet Research*, 20(6), e199. <https://doi.org/10.2196/jmir.9275>

### Girlanda 2016

Girlanda, F., Fiedler, I., Dawson, S., Priebe, S., Barbui, C., Becker, T., & Koesters, M. (2016). Dose-response relationship in cognitive-behavioural therapy for depression: Protocol for a systematic

review. International Prospective Register of Ongoing Systematic Reviews (PROSPERO).

### Gore 2011

Gore, F. M., Bloem, P. J., Patton, G. C., Ferguson, J., Joseph, V., Coffey, C., Sawyer, S. M., & Mathers, C. D. (2011). Global burden of disease in young people aged 10–24 years: A systematic analysis. *The Lancet*, 377(9783), 2093–2102.

### Haddaway 2021 [Computer Program]

Haddaway, N. R., Pritchard, C. C., & McGuinness, L. A. (2021). PRISMA2020: R package and ShinyApp for producing PRISMA 2020 compliant flow diagrams. Zenodo. <https://doi.org/10.5281/zenodo.4287834>

### Hamilton 1960

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery & Psychiatry*, 23(1), 56–62.

### Harris 2008

Harris, R. J., Bradburn, M. J., Deeks, J. J., Harbord, R. M., Altman, D. G., & Sterne, J. A. (2008). metan: Fixed- and random-effects meta-analysis. *Stata Journal*, 8(1), 3–28.

### Hayes 1999

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. Guilford Press.

### Hengartner 2021

Hengartner, M. P., & Plöderl, M. (2021). Estimates of the minimal important difference to evaluate the clinical significance of antidepressants in the acute treatment of moderate-to-severe depression. *BMJ Evidence-Based Medicine*, 27, 69–73. <https://doi.org/10.1136/bmjebm-2020-111600>

### Hetrick 2015

Hetrick, S. E., Bailey, A., Rice, S. M., Simmons, M. B., McKenzie, J. E., Montague, A. E., & Parker, A. G. (2015). A qualitative analysis of the descriptions of Cognitive Behavioural Therapy (CBT) tested in clinical trials of depressed young people. *Journal of Depression and Anxiety*, 4(1), 172–179. <https://doi.org/10.4172/2167-1044.1000172>

### Higgins 2011

Higgins, J. P., Altman, D. G., Gøtzsche, P. C., Jüni, P., Moher, D., Oxman, A. D., Savović, J., Schulz, K. F., Weeks, L., & Sterne, J. A. (2011). The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. *BMJ*, 343, d5928. <https://doi.org/10.1136/bmj.d5928>

### Higgins 2012

Higgins, J. P., Jackson, D., Barrett, J. K., Lu, G., Ades, A., & White, I. R. (2012). Consistency and inconsistency in network meta-analysis: Concepts and models for multi-arm studies. *Research Synthesis Methods*, 3(2), 98–110.

### Higgins 2021

Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (2021). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.2 (updated February 2021). Cochrane. [www.training.cochrane.org/handbook](http://www.training.cochrane.org/handbook)

### Hollis 2017

Hollis, C., Falconer, C. J., Martin, J. L., Whittington, C., Stockton, S., Glazebrook, C., & Davies, E. B. (2017). Annual research review: Digital health interventions for children and young people with mental health problems – A systematic and meta-review. *Journal of Child Psychology and Psychiatry*, 58(4), 474–503. <https://doi.org/10.1111/jcpp.12663>

### Hutton 2015

Hutton, B., Salanti, G., Caldwell, D. M., Chaimani, A., Schmid, C. H., Cameron, C., Ioannidis, J. P., Straus, S., Thorlund, K., Jansen, J. P., Mulrow, C., Catalá-López, F., Gøtzsche, P. C., Dickersin, K., Boutron, I., Altman, D. G., & Moher, D. (2015). The PRISMA extension statement for reporting of systematic reviews incorporating network meta-analyses of health care interventions: Checklist and explanations. *Annals of Internal Medicine*, 162(11), 777–784. <https://doi.org/10.7326/M14-2385>

### Ivarsson 2006

Ivarsson, T., Svalander, P., & Litalere, O. (2006). The Children's Depression Inventory (CDI) as measure of depression in Swedish adolescents. A normative study. *Nordic Journal of Psychiatry*, 60(3), 220–226.

### James 2020

James, K. (2020). *Remote mental health interventions for young people: A rapid review of the evidence*. Youth Access.

### Johnson 2002

Johnson, J. G., Harris, E. S., Spitzer, R. L., & Williams, J. B. (2002). The Patient Health Questionnaire for Adolescents: Validation of an instrument for the assessment of mental disorders among adolescent primary care patients. *Journal of Adolescent Health*, 30, 196–204.

### Kaltenthaler 2008

Kaltenthaler, E., Sutcliffe, P., Parry, G., Beverley, C., Rees, A., & Ferriter, M. (2008). The acceptability to patients of computerized cognitive behaviour therapy for depression: A systematic review. *Psychological Medicine*, 38(11), 1521–1530.

**Kendall 1995**

Kendall, P. C., & Panichelli-Mindel, S. M. (1995). Cognitive-behavioral treatments. *Journal of Abnormal Child Psychology*, 23, 107–124.

**Kroenke 2002**

Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric annals*, 32(9), 509–515.

**Linehan 2006**

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., & Heard, H. L. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry*, 63(7), 757–766.

**Lu 2006**

Lu, G., & Ades, A. (2006). Assessing evidence inconsistency in mixed treatment comparisons. *Journal of American Statistical Association*, 101, 447–459.

**López-López 2020**

López-López, J. A., Kwong, A. S. F., Washbrook, E., Pearson, R. M., Tilling, K., Fazel, M. S., Kidger, J., & Hammerton, G. (2020). Trajectories of depressive symptoms and adult educational and employment outcomes. *BJPsych Open*, 6(e6), 1–8. <https://doi.org/10.1192/bjo.2019.90>

**López-López 2019**

López-López, J. A., Davies, S. R., Caldwell, D. M., Churchill, R., Peters, T. J., Tallon, D., Dawson, S., Wu, Q., Li, J., Taylor, A., Lewis, G., Kessler, D. S., Wiles, N., & Welton, N. J. (2019). The process and delivery of CBT for depression in adults: A systematic review and network meta-analysis. *Psychological Medicine*, 49(12), 1937–1947. <https://doi.org/10.1017/S003329171900120X>

**Merry 2012**

Merry, S. N., Hetrick, S. E., Cox, G. R., Brudevold-Iversen, T., Bir, J. J., & McDowell, H. (2012). Cochrane review: Psychological and educational interventions for preventing depression in children and adolescents. *Evidence-Based Child Health: A Cochrane Review Journal*, 7(5), 1409–1685.

**Mew 2020**

Mew, E. J., Monsour, A., Saeed, L., Santos, L., Patel, S., Courtney, D. B., Watson, P. N., Szatmari, P., Offringa, M., Monga, S., & Butcher, N. J. (2020). Systematic scoping review identifies heterogeneity in outcomes measured in adolescent depression clinical trials. *Journal of Clinical Epidemiology*, 126, 71–79.

**NHS Digital 2018**

NHS Digital. (2018). Mental health of children and young people in England. [https://digital.nhs.uk/data-and-information/publications/](https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2017/2017)

[statistical/mental-health-of-children-and-young-people-in-england/2017/2017](https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2017/2017)

**NHS England 2021**

NHS England and NHS Improvement. (2021). Mental health, learning disabilities and autism: Guidance. <https://www.england.nhs.uk/coronavirus/publication/letter-responding-to-covid-19-mental-health-learning-disabilities-and-autism/>

**NICE 2017**

NICE. (2017). Depression in children and young people: Identification and management. <https://www.nice.org.uk/guidance/cg28>

**Patton 2014**

Patton, G. C., Coffey, C., Romaniuk, H., Mackinnon, A., Carlin, J. B., Degenhardt, L., Olsson, C. A., & Moran, P. (2014). The prognosis of common mental disorders in adolescents: A 14-year prospective cohort study. *The Lancet*, 383(9926), 1404–1411. [https://doi.org/10.1016/S0140-6736\(13\)62116-9](https://doi.org/10.1016/S0140-6736(13)62116-9)

**Pennant 2015**

Pennant, M. E., Loucas, C. E., Whittington, C., Creswell, C., Fonagy, P., Fuggle, P., Kelvin, R., Naqvi, S., Stockton, S., & Kendall, T. (2015). Computerised therapies for anxiety and depression in children and young people: A systematic review and meta-analysis. *Behaviour Research and Therapy*, 67(4), 1–18.

**Rao 2009**

Rao, U., & Chen, L. A. (2009). Characteristics, correlates, and outcomes of childhood and adolescent depressive disorders. *Dialogues in Clinical Neuroscience*, 11(1), 45–62. <https://doi.org/10.31887/DCNS.2009.11.1/urao>

**Rathbone 2017**

Rathbone, A. L. (2017). Assessing the efficacy of mobile health apps using the basic principles of cognitive behavioral therapy: Systematic review. *Journal of Medical Internet Research*, 19(11), e399.

**Reynolds 1986**

Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology*, 54(5), 653.

**Reynolds 2004**

Reynolds, W. M. (2004). Reynolds Adolescent Depression Scale – 2nd edition. In M. Hersen, D. L. Segal, & M. Hilsenroth (Eds.), *Comprehensive handbook of psychological assessment. Vol. 2: Personality assessment and psychopathology* (pp. 224–236). John Wiley & Sons.

**Rhodes 2015**

Rhodes, K. M., Turner, R. M., & Higgins, J. P. (2015). Predictive distributions were developed for the extent of heterogeneity in meta-analyses of continuous outcome data. *Journal of Clinical Epidemiology*, 68(1), 52–60.

**Rice 2014**

Rice, S. M., Goodall, J., Hetrick, S. E., Parker, A. G., Gilbertson, T., & Amminger, G. P. (2014). Online and social networking interventions for the treatment of depression in young people: a systematic review. *Journal of medical Internet research*, 16(9), e206.

**Richardson 2010**

Richardson, T., Stallard, P., & Velleman, S. (2010). Computerised cognitive behavioural therapy for the prevention and treatment of depression and anxiety in children. *Clinical Child and Family Psychology Review*, 13, 275–290.

**Roelofs 2010**

Roelofs, J., Braet, C., Rood, L., Timbremont, B., van Vlierberghe, L., Goossens, L., & van Breukelen, G. (2010). Norms and screening utility of the Dutch version of the Children's Depression Inventory in clinical and nonclinical youths. *Psychological Assessment*, 22(4), 866–877.

**Rohde 2013**

Rohde, P., Lewinsohn, P. M., Klein, D. N., Seeley, J. R., & Gau, J. M. (2013). Key characteristics of major depressive disorder occurring in childhood, adolescence, emerging adulthood, and adulthood. *Clinical Psychological Science*, 1(1), 41–53.

**Salanti 2008**

Salanti, G., Higgins, J. P., Ades, A. E., & Ioannidis, J. P. (2008). Evaluation of networks of randomized trials. *Statistical Methods in Medical Research*, 17(3), 279–301.

**Salanti 2011**

Salanti, G., Ades, A. E., & Ioannidis, J. P. (2011). Graphical methods and numerical summaries for presenting results from multiple-treatment meta-analysis: An overview and tutorial. *Journal of Clinical Epidemiology*, 64(2), 163–171.

**Salanti 2014**

Salanti, G., Giovane, C. D., Chaimani, A., Caldwell, D. M., & Higgins, J. P. (2014). Evaluating the quality of evidence from a network meta-analysis. *PLoS One*, 9(7), e99682.

**Segal 2012**

Segal, Z. V., Williams, J. M., & Teasdale, J. D. (2012). *Mindfulness-based cognitive therapy for depression*. Guilford Press.

**Sellars 2021**

Sellars, E., Pavarini, G., Michelson, D., Creswell, C., & Fazel, M. (2021). Young people's advisory groups in health research: Scoping review and mapping of practices. *Archives of Disease in Childhood*, 106, 698–704. <https://doi.org/10.1136/archdischild-2020-320452>

**Sharp 2015**

Sharp, R. (2015). The Hamilton Rating Scale for depression. *Occupational Medicine*, 65(4), 340. <https://doi.org/10.1093/occmed/kqv043>

**Stallard 2010**

Stallard, P., Velleman, S., & Richardson, T. (2010). Computer use and attitudes towards computerised therapy amongst young people and parents attending child and adolescent mental health services. *Child and Adolescent Mental Health*, 15(2), 80–88.

**Stockings 2015**

Stockings, E., Degenhardt, L., Lee, Y. Y., Mihalopoulos, C., Liu, A., Hobbs, M., & Patton, G. (2015). Symptom screening scales for detecting major depressive disorder in children and adolescents: A systematic review and meta-analysis of reliability, validity and diagnostic utility. *Journal of Affective Disorders*, 174, 447–463.

**Thapar 1998**

Thapar, A., & McGuffin, P. (1998). Validity of the shortened Mood and Feelings Questionnaire in a community sample of children and adolescents: A preliminary research note. *Psychiatry Research*, 81(2), 259–268.

**The Lancet Child and Adolescent Health 2021**

The Lancet Child and Adolescent Health. (2021). Adolescent wellbeing in the UK. *The Lancet Child and Adolescent Health*, 5(10), P681. [https://doi.org/10.1016/S2352-4642\(21\)00284-4](https://doi.org/10.1016/S2352-4642(21)00284-4)

**Tisher 1992**

Tisher, M., Lang-Takac, E., & Lang, M. (1992). The childrens depression scale: Review of Australian and overseas experience. *Australian Journal of Psychology*, 44(1), 27–35.

**Turner 2012**

Turner, R. M., Davey, J., Clarke, M. J., Thompson, S. G., & Higgins, J. P. (2012). Predicting the extent of heterogeneity in meta-analysis, using empirical data from the Cochrane Database of Systematic Reviews. *International Journal of Epidemiology*, 41(3), 818–827.

**van der Zanden 2012**

van der Zanden, R., Kramer, J., Gerrits, R., & Cuijpers, P. (2012). Effectiveness of an online group course for depression in adolescents and young adults: A randomized trial. *Journal of Medical Internet Research*, 14(3), e86.

**Vigerland 2016**

Vigerland, S., Lenhard, F., Bonnert, M., Lalouni, M., Hedman, E., Ahlen, J., Olén, O., Serlachius, E., & Ljótsson, B. (2016). Internet-delivered cognitive behavior therapy for children and adolescents: A systematic review and meta-analysis. *Clinical Psychology Review*, 50, 1–10. <https://doi.org/10.1016/j.cpr.2016.09.005>

**Vizard 2020**

Vizard, T., Sadler, K., Ford, T., Newlove-Delgado, T., McManus, S., Marcheselli, F., Davis, J., Williams, T., Leach, C., Mandalia, D., & Cartwright, C. (2020). Mental Health of Children and Young People in England 2020, Wave 1 follow-up to the 2017 survey. Retrieved 3 August 2021. [https://files.digital.nhs.uk/CB/C41981/mhcyp\\_2020\\_rep.pdf](https://files.digital.nhs.uk/CB/C41981/mhcyp_2020_rep.pdf)

**White 2005**

White, I. R., & Thomas, J. (2005). Standardized mean differences in individually-randomized and cluster-randomized trials, with applications to meta-analysis. *Clinical Trials*, 2, 141–151.

**White 2011**

White, I. R. (2011). Multivariate random-effects meta-regression: Updates to mvmeta. *Stata Journal*, 11(2), 255.

**White 2012**

White, I. R., Barrett, J. K., Jackson, D., & Higgins, J. P. (2012). Consistency and inconsistency in network meta-analysis: Model estimation using

multivariate meta-regression. *Research Synthesis Methods*, 3(2), 111–125.

**White 2015**

White, I. R. (2015). Network meta-analysis. *Stata Journal*, 15(4), 951–985.

**Zhou 2015**

Zhou, X., Hetrick, S. E., Cuijpers, P., Qin, B., Barth, J., Whittington, C. J., Cohen, D., Del Giovane, C., Liu, Y., Michael, K. D., Zhang, Y., Weisz, J. R., & Xie, P. (2015). Comparative efficacy and acceptability of psychotherapies for depression in children and adolescents: A systematic review and network meta-analysis. *World Psychiatry*, 14(2), 207–222.

**SUPPORTING INFORMATION**

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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