Child and adolescent mental disorders module - evidence profile CAMH2: Psychosocial interventions for promotion of mention health and prevention of mental health conditions in children

WHO mhGAP guideline update: Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders

2023

World Health Organization

Contents

Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders, available at: https://www.who.int/publications/i/item/9789240084278

1. Background

During middle childhood (5-10 years), children learn foundational skills that prepare them for adolescence and adulthood. This is a period characterized by important social, emotional, and cognitive changes, leading to advances in executive functioning, information processing, goal-setting and emotional regulation (DelGiudice, 2018). These competencies aid interpersonal interactions and provide a foundation for healthy social relationships, school performance, productivity at work, and better overall health and well-being (DelGiudice, 2018). During middle childhood, children develop and maintain peer and other relationships outside the family (Nuru-Jeter et al., 2010) and feel increasing pressure to conform to (often harmful) gender roles and expectations (Sravanti & Kommu, 2020). Exposure to risk and protective factors during this period influences mental health and developmental trajectories into adolescence and adulthood (Lund et al., 2018).

The COVID-19 pandemic has significantly disrupted the lives of children. Ongoing lockdowns have widened the learning gap, particularly in contexts where schools and families are not adequately equipped and resourced to engage in online learning (van Lancker & Parolin, 2020). Temporary closures of essential services—including clinics, social workers and community organizations—have added to the risks faced by most marginalized (Fore, 2020). In many settings, children confined to their homes have been at increased risk of experiencing violence and maltreatment, with higher levels of caregiver stress (United Nations, 2020). Furthermore, the disruption of daily routines, fear of infection, social distancing from peers, and lack of access to recreational activities have increased children's feelings of anxiety and uncertainty (Imran et al., 2020). On a broader level, the economic ramifications of the pandemic have been devastating, and growing unemployment, inequality and food insecurity will continue to impact on children's mental health as they transition to adolescence and adulthood.

Accordingly, as part of the mhGAP update (see Appendix I) the objective of this guideline is to provide global, evidence-informed recommendations on psychosocial interventions for the promotion of mental health and the prevention of mental health conditions and self-harm in children aged 5-10 years. Psychosocial interventions, which can include interventions with a psychological, social, and/or behavioural approach or some combination thereof, are commonly used to promote child mental health and prevent the development of mental health conditions. This guideline considers both the general population of children in this age range, as well as selected subgroups. Universally delivered interventions are those which are implemented with the general population regardless of risk status. Targeted interventions are interventions delivered to subgroups of children who are at higher risk of developing mental health conditions either in the short or longer term. These children are identified based on exposure to biological, psychological, or social risk factors, at the individual, family or community level (National Research Council, 2009).

2. Methodology

2.1. PICO question

What is the effectiveness of psychosocial interventions for promotion of mental health and prevention of mental health conditions in children?

Population (P): All children 5-10 years of age and/or children belonging to a high-risk group, and subgroup/s (children belonging to a high-risk group/s)

Intervention (I): Psychosocial interventions
Comparator (C): No treatment, treatment as usual
Outcomes (O):
Critical outcomes:

- Psychosocial well-being
- Emotional problems
- Depression and anxiety (diagnosis only)

Important outcomes:

- Aggressive, disruptive and oppositional behaviours
- Conduct disorders (diagnosis only)
- Self-harm
- Stigma

2.2. Search strategy

2.2.1. Bibliographic databases

We conducted searches in PubMed, Scopus, CINAHL, Cochrane Library, and Epistemonikas. The final search strategies used across all databases are available in Appendix II.

2.2.2. Inclusion and exclusion criteria

We included systematic reviews and meta-analyses which sought to evaluate randomized controlled trials of interventions. Pre-defined search filters to restrict results to reviews only were used where available e.g. using “systematic[sb]” on PubMed.

2.2.3. Types of reviews

We included reviews of studies from high-, middle- and low-income countries that included randomized controlled trials, crossover trials, cluster randomized trials, and factorial trials.

2.2.4. Types of participants

We included reviews of studies with participants of any gender between the ages of 5 and 10 years. In the event that a review reported a wider age range beyond these limits, we included the review if the majority of studies’ mean ages of participants fell within this age range or if data could be extracted for the specified age range or as proximate to this age range as possible (e.g. primary school-aged children). Reviews of studies on i) indicated prevention for children screened into interventions based on existing symptomatology and ii) treatment for children with diagnosed mental health conditions were not included.

For sub-groups of children, based on an initial scoping of the literature, we searched for reviews of studies including children exposed to additional mental health risks. These groups

included children with disabilities, children whose parents were diagnosed with mental health conditions, children with exposure to family adversity, children with exposure to trauma/abuse/neglect, and children in humanitarian emergencies.

2.2.5. Types of interventions

Reviews of studies on interventions that had one of the following as primary or secondary aims (stated or inferred) were included:

- to promote psychosocial well-being
- to prevent emotional problems
- to prevent aggressive, disruptive and oppositional behaviours
- to prevent self-harm

Reviews were included if they included promotive and/or preventive psychosocial interventions designed to target children between the ages of 5-10 years. Promotive and/or preventive interventions are "distinct from treatment, but complementary in a common goal of reducing the burden of mental, emotional, and behavioural disorders on the healthy development of children and young people" (National Research Council (US) & Institute of Medicine (US) Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, 2009). Psychosocial interventions are interventions that use a psychological, behavioural or social approach, or a combination of these to improve psychosocial well-being and/or reduce the risk of poor mental health outcomes (England et al., 2015; Richter et al., 2006). This includes programmes delivered individually or in groups, for children, caregivers, or families or in combinations of these. This does not include biological interventions (such as pharmacotherapy). Psychosocial interventions that only seek to modify the structural context of the child were not considered within the scope of this review. Accordingly, we excluded reviews of interventions consisting solely of structural or societal-level interventions, such as cash transfers or school-climate interventions that lacked a psychosocial component.

There was no restriction on intervention setting. We included reviews on school-, community-health centre- or home-based interventions, as well as humanitarian contexts such as refugee camps. They could also be delivered in-person or remotely or in combination. We included reviews of interventions using a range of individuals such as school staff, nurses, teachers, health and non-health professionals, community workers, lay workers and peers to deliver programmes.

2.2.6. Types of comparators

The review team included reviews where the primary comparator was care as usual. This refers to reviews that compare outcomes for children enrolled in promotive and/or preventative psychosocial interventions to those who received no intervention or the usual or routine care available to children in the specific setting. If reviews did not disaggregate by study design (e.g. for those that included both RCTs and observational studies in analyses), they were excluded.

2.2.7. Types of outcome measures

Reviews included studies that use measurement tools that involve direct assessment or observation, child self-report, or parents/caregivers or teachers reporting on child outcomes.

2.2.8. Published language of study

No language exclusion rule was applied.

2.2.9. Date range

For reviews of universally delivered interventions, we initially searched for reviews published in the past two years, between January 2020 and January 2022. If a suitable review was not found for a given outcome in this date range, we extended our search to January 2017-December 2019.

For selected subgroups, we initially searched for reviews published in the past two years, and then extended the search to the past five years (from January 2017 – January 2022).

2.3. Data collection and analysis

Complete bibliographic records of all search results were exported to Endnote software, where all duplicates were removed (The EndNote Team, 2013). These results were then exported to Rayyan (Ouzzani et al., 2016), a web-based tool for systematic review management, where any outstanding duplicates identified were highlighted and removed. Reviewers worked in pairs to independently review all the remaining abstracts, screen by title and abstract content, using a short checklist of inclusion and exclusion criteria. All reviewers then convened to discuss any discrepancies in their views. Next, two reviewers independently assessed the full-text versions of all studies considered to be potentially relevant. In the case of discrepancies, a third researcher on the team made a ruling on the full-text article.

All selected systematic reviews underwent careful review to identify which had outcomes that matched most closely with the outcomes specified in the PICO question, and a final list of reviews was compiled.

We adopted a two-tiered process to engage in quality assessment, using the AMSTAR 2 tool (further details below) (Shea et al., 2017). First, we applied AMSTAR 2 to a primary set of reviews that matched the stated criteria most closely. When more than one review was identified for the same outcome, we elected to include the most recent, comprehensive, and/or higher-quality AMSTAR review. For those outcomes where we were not able to identify a high-quality review, we applied AMSTAR 2 to reviews conducted from January 2017 onwards (past five years).

The flow of articles throughout the search and up to the final cohort of included studies is depicted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram, which includes the number of excluded articles and the reasons for any exclusions at the full-text screening stage.

2.4. Selection and coding of identified records

As noted above, duplicates were removed in EndNote software, and complete bibliographic records of all search results were exported to Rayyan.

2.5. Quality assessment

We used the AMSTAR 2 tool to assess review quality. AMSTAR 2 is a tool developed for the critical appraisal of systematic reviews (Shea et al., 2017). It includes items on review protocol registration, adequacy of the search strategy, justification for study exclusions, risk of bias, appropriateness of meta-analytic methods and publication bias in addition to other domains. While it is not designed to generate an overall score, it can assist researchers and policymakers in identifying high-quality reviews and evidence for uptake.

After closely reviewing each publication against the AMSTAR II criteria, the online tool was used to generate an appraisal indicating critically low, low, moderate or high quality.

2.6. Application of GRADE

The Grading of Recommendations Assessment, Development and Evaluation approach was used to assess the quality of the evidence.

The domains that were assessed included:

- risk of bias
- inconsistency
- indirectness
- imprecision
- publication bias

2.6.1. Risk of bias

Risk of bias assessment was completed to identify any limitations in the study design that may bias the overall estimates of the effect of treatment. We reviewed the risk of bias assessment from the selected review, with an emphasis on:

- randomization
- blinding of outcome assessors (detection bias)
- incomplete outcome data (attrition bias)

If possible and the data was available, the following principles were applied:

- where < 10% of studies contributing data have high risk of bias, no downgrading was applied;
- where 10 – 30% of studies have high risk of bias, the outcome was downgraded by one;
- where > 30% of studies have high risk of bias, the outcome was downgraded by two.

An unclear risk of bias judgement was not considered high for this purpose.

2.6.2. Inconsistency

Inconsistency refers to unexplained differing estimates of the treatment effect (in other words, heterogeneity or variability in results) across studies.

Heterogeneity was assessed using the I^2 test for heterogeneity and its associated P-value as reported in the review. We downgraded by one for I^2 test values above 75% and by two for values above 90%, based on the Cochrane guidance for dealing with heterogeneity. Possible grading adjustments were considered by assessing the significance of the P-value, and by determining whether heterogeneity could be explained based on the types of intervention, participants, settings or method of outcome assessment. Where a single study contributed data to an outcome, no downgrading was done for inconsistency.

In cases where alternative robust measures of heterogeneity were used by review authors, author interpretations were used in GRADE, and these are noted as footnotes in GRADE tables.

2.6.3. Indirectness

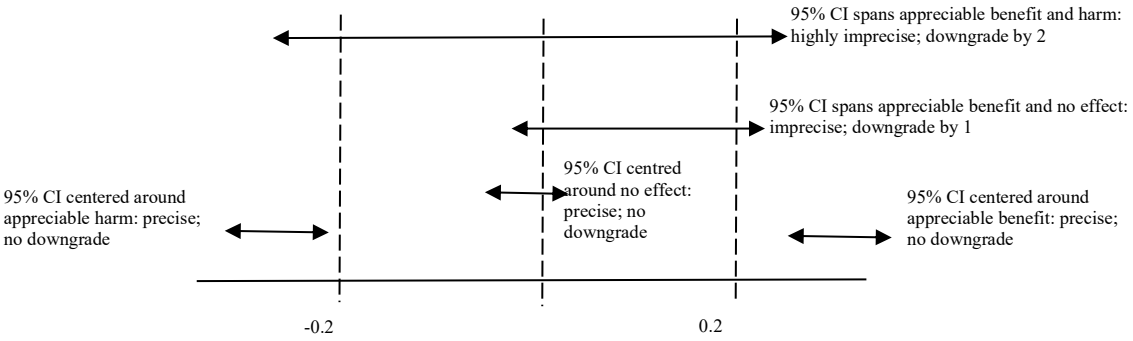
Indirectness is the degree to which the findings can be generalized, or the extent to which the available evidence differs from the research question in terms of population, intervention, comparator or outcome. We assessed the generalisability of the findings by considering whether the intervention, participants, settings and methods of assessing outcomes as reported in the review suited the contexts for which the guidelines are intended. (For example, high-income settings and highly trained intervention facilitators do not provide direct evidence for resource constrained LMIC settings.)

Where a single study contributed data to an outcome, it was necessary to downgrade by one (sometimes in addition to downgrading for other issues related to directness).

2.6.4. Imprecision

Results are imprecise when studies include relatively few participants and few events, leading to wide confidence intervals (CI) relating to the estimate of the effect.

For continuous variables, the evidence review team considered an effect estimate of |0.2| as clinically significant. In order to determine imprecision, the 95% confidence intervals around the effect estimate were assessed. For dichotomous variables, clinical significance of a risk ratio between 0.5 and 2 was considered.



2.6.5. Publication bias

Publication bias refers to "the systematic underestimate or overestimate of the underlying beneficial or harmful effect of an intervention or exposure resulting from the selective publication of studies based on the study results; studies in which no effect is found are less likely to be published" (World Health Organization, 2014). We reviewed the publication bias analysis as reported in the selected review and visually assessed symmetry and indicated suspected publication bias where possible and appropriate.

2.7. Analysis of subgroups or subsets

Where possible, we applied GRADE to reviews on subgroups identified through the search process. Where it was not possible, we provide a summary of the available evidence.

3. Results3.1. Systematic reviews and/or studies identified by the search process

Fig. 1. PRISMA flow diagram for systematic review of reviews (universal prevention)

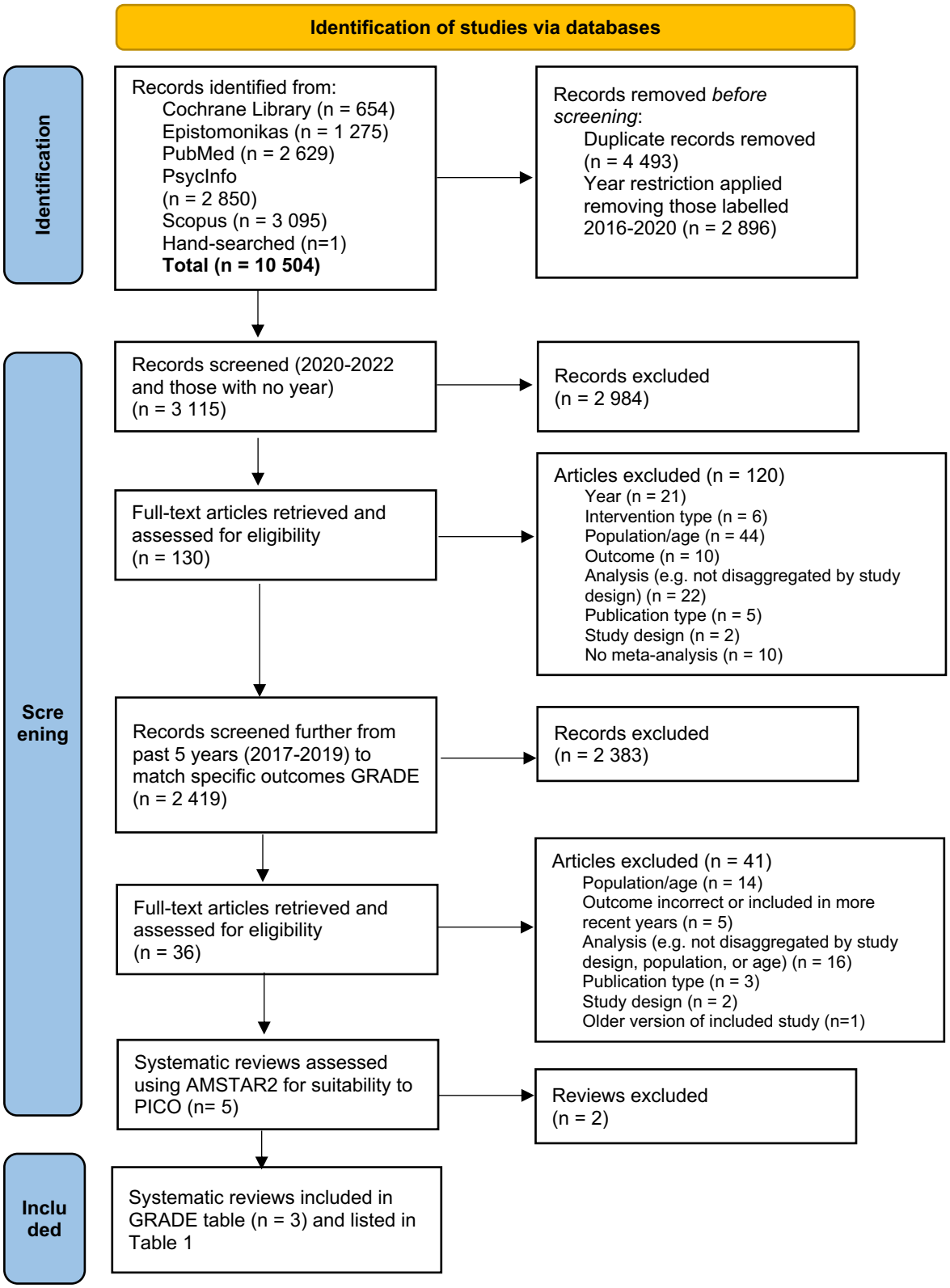
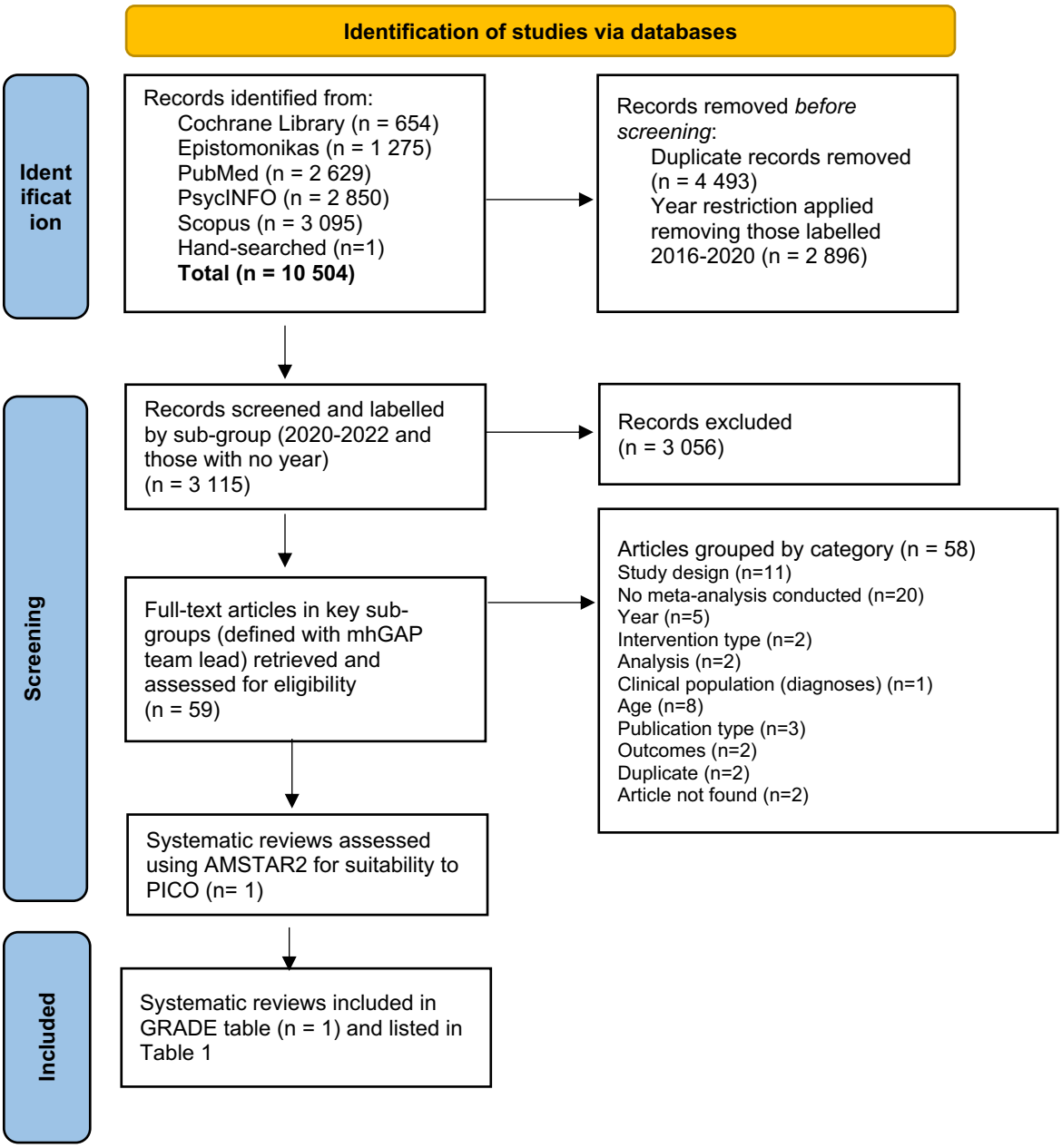


Figure 2: PRISMA flow diagram for systematic review of reviews (targeted prevention)



3.2. List of studies included and excluded

3.2.1. Included in GRADE tables/footnotes

3.2.1.1. All children (universally delivered interventions)

Caldwell, D. M., Davies, S. R., Thorn, J. C., Palmer, J. C., Caro, P., Hetrick, S. E., Gunnell, D., Anwer, S., López-López, J. A., French, C., Kidger, J., Dawson, S., Churchill, R., Thomas, J., Campbell, R., & Welton, N. J. (2021). School-based interventions to prevent anxiety, depression and conduct disorder in children and young people: a systematic review and network meta-analysis. *Public Health Research*, *9*(8), 1–284. https://doi.org/10.3310/phr09080

Pandey, A., Hale, D., Das, S., Goddings, A. L., Blakemore, S. J., & Viner, R. M. (2018). Effectiveness of universal self-regulation-based interventions in children and adolescents a systematic review and meta-analysis. In *JAMA Pediatrics* (Vol. 172, Issue 6, pp. 566–575). American Medical Association. https://doi.org/10.1001/jamapediatrics.2018.0232

Smith, S., Barajas, K., Ellis, B., Moore, C., McCauley, S., & Reichow, B. (2021). A Meta-Analytic Review of Randomized Controlled Trials of the Good Behavior Game. In *Behavior Modification* (Vol. 45, Issue 4, pp. 641–666). SAGE Publications Inc. https://doi.org/10.1177/0145445519878670

3.2.1.2. Subgroups (targeted interventions)

Lannes, A., Bui, E., Arnaud, C., Raynaud, J. P., & Revet, A. (2021). Preventive interventions in offspring of parents with mental illness: A systematic review and meta-analysis of randomized controlled trials. In *Psychological Medicine* (Vol. 51, Issue 14, pp. 2321–2336). Cambridge University Press. https://doi.org/10.1017/S0033291721003366

3.2.2. Excluded from GRADE tables/footnotes

3.2.2.1. All children (universally delivered interventions)

Beelmann A, Lösel F. A Comprehensive Meta-Analysis of Randomized Evaluations of the Effect of Child Social Skills Training on Antisocial Development. Journal of Developmental and Life-Course Criminology. 2021;7(1):41-65.

Werner-Seidler A, Spanos S, Calear AL, et al. School-based depression and anxiety prevention programs: An updated systematic review and meta-analysis. Clin Psychol Rev. 2021;89:102079. doi:10.1016/j.cpr.2021.102079. Epub 2021 Aug 30.

3.2.2.2. Subgroups (targeted interventions)

No additional reviews of interventions for children of parents with mental health conditions were subjected to AMSTAR quality checking, due to ineligibility.

Table 1. What is the effectiveness of psychosocial interventions for promotion of mental health and prevention of mental health conditions in children?

Serial Number	Intervention/ Comparison	Outcomes	Systematic reviews (Name, Year)	Justification/explanation for systematic review
1	Psychosocial interventions versus treatment as usual for all children ages 5-10	Psychosocial well-being outcomes	Pandey et al. 2018	This review was the highest-quality review that examined psychosocial well-being in children in our age range, specifically analysing the outcome of self-regulation.
		Emotional problems: Internalizing problems, symptoms of depression and anxiety	Caldwell et al. 2021	This review was a comprehensive, high-quality review using network meta-analyses as well as a direct pairwise meta-analysis to analyse effects. Analyses were disaggregated allowing us to extract findings by intervention type/target (universal interventions) and age (primary school age).
		Depression/anxiety disorders (Diagnoses only)	No review identified	N/A
		Aggressive, disruptive, and oppositional behaviour	Smith et al. 2021	The review was of moderate quality and analysed the effects of a widely used intervention on conduct problems, aligned with our question's age range.
		Conduct dissocial disorders (Diagnoses)	No review identified	N/A
		Self-harm	No review identified	N/A
		Stigma	No review identified	N/A
2	Psychosocial interventions versus treatment as usual for children whose parents are diagnosed with mental health conditions	Psychosocial well-being outcomes	No review identified	N/A
		Emotional problems	Lannes et al. 2021	This review was the only high-quality meta-analysis of preventive interventions for children of parents with mental health conditions, reflecting a sample in the right age range. It included in its meta-analysis internalizing behaviours in participating children.
		Depression/anxiety (Diagnoses only)	Lannes et al. 2021	The review was included for the same reason cited above. Additionally, it explored incidence of depression and anxiety in participating children.
		Aggressive, disruptive, and oppositional behaviour	Lannes et al. 2021	The review was included for the same reason cited above and included in its meta-analysis externalizing behaviours.
		Conduct dissocial disorders	No review identified	N/A

Serial Number	Intervention/ Comparison	Outcomes	Systematic reviews (Name, Year)	Justification/explanation for systematic review
		(Diagnoses)		
		Self-harm	No review identified	N/A
		Stigma	No review identified	N/A

3.3. Narrative description of studies that contributed to GRADE analysis

3.3.1. All children (universally delivered interventions)

3.3.1.1. Psychosocial well-being outcomes

Pandey et al. (2018) conducted a systematic review on the effectiveness of universal interventions to improve self-regulation in children and adolescents (Pandey et al. 2018). Self-regulation (SR) was described as a diverse construct that includes the capacity for positive interactions, emotional control and avoiding inappropriate or aggressive behaviour. Studies eligible for this review were cluster randomized trials or randomized clinical trials evaluating universal interventions designed to improve self-regulation in children and adolescents aged 0 to 19 years. They included at least one child outcome associated with self-regulation skills.

The authors identified 49 studies of 50 interventions, including 17 cluster randomized trials and 32 randomized clinical trials. A total of 23 098 participants (mean n = 462 participants per study) participated, who ranged in age from 2 to 17 years (median age, 6 years). Quantitative synthesis was possible for 42 studies. All studies were conducted in high income countries; however, 34.3% of the participants were classified as low-income. Interventions found were categorized into curriculum-based interventions, family-based interventions and social and personal skill interventions which mostly focused on primary school aged children and physical exercise interventions and mindfulness and yoga interventions which were mostly aimed at adolescents.

Two-thirds (33 of 50) of the interventions in this review were successful in improving SR. Interventions showed an overall pooled effect size of 0.40 (95%CI: 0.31 - 0.48 with moderately high heterogeneity (I^2 = 77%). This high heterogeneity was partly accounted for by the differences between parent-reported, teacher-reported, and self-reported outcomes. A second meta-analysis, not reported in our GRADE tables, was conducted that focused on task performance scores only, and had similar findings.

Several interventions (n = 21) were curriculum-based delivered by teachers. Improvement in self-regulation was reported in 16 of 21 curriculum-based interventions, most of which were conducted with preschool and primary school-age children. Nine interventions were family-based interventions, five of which were successful in bringing a consistent change in SR measures in intervention groups. Family-based interventions used factors such as parenting practices and improving sibling relationships to enhance SR. Some family-based interventions took place in community settings; while still effective, these interventions faced challenges recruiting and retaining participants. Four of six social and personal skills interventions (67%) showed improvements in self-regulation. Social and personal skill interventions focused on personal responsibility, model behaviour and conflict resolution. These interventions were highly effective for delay of gratification, effortful control and attention. Four of the eight mindfulness and yoga interventions (50%) and four of six exercise-based programs (67%), which were focused more on adolescent populations, showed improvements in self-regulation.

3.3.1.2. Emotional problems: Internalizing problems, symptoms of depression and anxiety

Caldwell et al. (2021) conducted a comprehensive review on the impact of prevention programmes on common mental health problems in educational settings.

Randomized trials of universal or targeted interventions for the prevention of common mental health problems (defined as anxiety, depressive and conduct disorder) in children and young people aged 4–18 years were included. This included both individually randomized and cluster

randomized trials. Eligible intervention types included psychological interventions, educational interventions, and physical interventions (including exercise, meditation, or relaxation). Interventions were included if they focused on full- or part-time educational settings as well as if they were implemented on school groups. Studies were excluded if baseline measures were suggestive of clinically significant symptom levels in > 40% of participants.

While network meta-analyses were conducted for a larger sample of studies spanning universal and targeted interventions across all ages (k = 142, with k = 109 contributing to meta-analysis), we examined disaggregated data only (universal interventions, with primary school-aged children between 4-11 years). All studies focused on prevention of depression, anxiety, or both.

For the universal, primary school-based studies examined in the disaggregated sample, a total of 15 studies were examined for anxiety prevention, and 13 for depression prevention. Network meta-analyses were conducted on self-reported anxiety symptoms and depression symptoms. The main timepoint was post-intervention; evidence from 6-12 month post-intervention are also included in GRADE tables.

All studies examined for anxiety prevention were CBT-based. Only weak evidence showed that CBT-based interventions may prevent anxiety in universal primary school settings (SMD –0.07, 95% CI: –0.23 to 0.05). There was no evidence that CBT reduced symptoms of anxiety at 6-12 months, relative to usual curriculum (SMD –0.11, 95% CI: –0.35 to 0.11).

For depression prevention, at post-intervention there were 11 studies that utilized CBT and 1 study that utilized behavioural therapy (not included in GRADE). There was a lack of evidence that CBT (SMD –0.13, 95% CI: –0.44 to 0.17) prevents self-reported symptoms of depression post-intervention, and weak evidence, of a small effect, that CBT prevents symptoms of depression at 6–12 months, relative to usual curriculum (SMD –0.15, 95% CI: –0.43 to 0.09).

The interventions analysed aimed showed weak modest effects or no effects in preventing anxiety and depression. CBT-based interventions may be more effective if they include a psychoeducational component. The authors also argue that more rigorous study designs are needed to establish robust evidence for universal preventative interventions. Future trials should also include long-term follow-up data collection and conduct cost-benefit analyses to establish the feasibility and viability of specific approaches. Although school-based CBT anxiety and depression interventions may be experienced as useful and enjoyable by participants, a better understanding of whether they are cost-effective is needed. For example, long-term cost implications associated with children missing school for mental health reasons could affect cost evaluations; this issue has not been included in the cost evaluations of any studies. Future preventative intervention studies should also include measures of potential harms and/or side-effects.

3.3.1.3. Aggressive, disruptive, and oppositional behaviour outcomes

Smith et al. reviewed studies evaluating the Good Behaviour Game on conduct problems, inattention, reading performance and peer relations (Smith et al. 2021). The Good Behaviour Game is a classroom management, reward-based game that rewards children for displaying appropriate on-task behaviours during instructional times. The class group is divided into two teams which compete against each other. Winners of the game are rewarded with classroom privileges in order to reinforce prosocial behaviours and discourage disruptive behaviours.

The authors included RCTs comparing GBG to an active or waitlist control condition in regular classroom settings in the review. Special education classrooms or other settings such as

cafeterias or after-school programs were excluded. Children were in primary school settings, aged 5-11 years. Outcomes included conduct problems such as aggression or oppositional behaviour, in addition to other behaviours not relevant for this evidence review.

Eight studies were included in the systematic review, and seven studies were included in the meta-analysis, with n = 4 700 participants aged 5-11 years. Ratings from teachers (n = 5) and peers (n = 3) on conduct problems were analysed separately. Meta-analysis showed that the GBG had a positive impact on teacher-rated conduct problems compared to controls (k = 5; g = 0.095; 95% CI: 0.011 - 0.178; z = 2.229; P = 0.026). This impact was higher for boys for girls (boys: g = 0.050; 95% CI: −0.060 to 0.159; girls: g = 0.192; 95% CI: 0.025 - 0.359). The GBG had a significant positive impact on peer-rated conduct problems compared to controls (k = 3; g = 0.190; 95% CI: 0.002 - 0.378; z = 1.983; P = 0.047), with no differences between boys and girls. The authors note that future studies should examine the impact of the game beyond the class setting and which moderators and which components of the interventions are beneficial for girls and boys.

3.3.2. Subgroups (targeted interventions)

3.3.2.1. Children of parents with mental health conditions

Lannes et al. conducted a systematic review on the efficacy of psychosocial interventions to prevent negative mental health outcomes of children whose parents have mental health conditions (Lannes et al. 2021).

The authors included reviews of interventions to reduce incidence of mental health conditions and reduce emotional and behavioural symptoms in children and adolescents up to the age of 18 years. Reviews of interventions including children with a mental disorder diagnosis were excluded. Twenty trials were included in the review, with a total of n = 2 689 participants. The reviews included studies of children with parents with mood disorders (n = 13), substance use disorders (n = 5), anxiety disorders (n = 1) and multiple disorders (n = 1). Nine interventions were family-based interventions, three studies were youth-based interventions, and four interventions only included mothers.

A meta-analysis and narrative review were conducted. A random-effect meta-analysis was used to assess the relative risks and standardized mean differences (SMD) for symptom severity. The risk of the children developing any mental disorder decreased by 47% in the intervention groups (RR = 0.53, range 0.17–1.03, 95% CI: 0.34 – 0.84, Z = 2.75, P = 0.006). Post-intervention analysis showed that internalizing symptoms were significantly reduced but with a small effect (SMD = −0.25, range −0.53 to 0.29, 95% CI: −0.37 to −0.14, Z = 4.43, P < 0.00001, I^2 = 0%). This was also true of short-term follow-up effects (SMD = −0.20, range −1 to 0.34, 95% CI: −0.37 to −0.03, Z = 2.33, P = 0.02). However, there was no impact on externalizing symptoms (SMD = −0.11, range −0.68 to 0.36, 95% CI: −0.27 to 0.04, Z = 1.42, P = 0.16, I^2 = 25%). This was also true at short-term follow up (SMD = 0.06, range −0.69 to 0.86, 95% CI: −0.15 to 0.26, Z = 0.56, P = 0.57, I^2 = 58%) and long-term follow-up (SMD = −0.04, range −0.20 to 0.30, 95% CI: −0.22 to 0.14, Z = 0.46, P = 0.65, I^2 = 30%). The authors found that there was a statistically significant subgroup difference for children with no symptoms at baseline compared to those who had symptoms in externalizing outcomes χ^2 = 7.45, P = 0.006, I^2 = 86.6%. This finding suggests that children with few or no symptoms prior to the intervention may benefit more from an intervention.

Most of the interventions included CBT and psychoeducation. Other approaches included the Coping and Promoting Strengths intervention, interpersonal therapy, ecologically based family therapy, video feedback therapy, the Focus on Family project, family talk interventions,

integrated bipolar parenting intervention, behavioural couple therapy and parent training incentives. Five studies included booster sessions between 3 and 10 months later. Two of the studies indicated that long-term effects were improved due to the use of these booster sessions.

3.4. Grading the Evidence

Table 2. Should psychosocial interventions vs treatment as usual be used with children ages 5-10 years?

Author(s): Christina Laurenzi, Sihle Mamtuse, Caitlin Briedenhann, Sarah Skeen

Question: Psychosocial interventions compared to treatment as usual for children ages 5-10

Setting:

Bibliography:

Psychosocial well-being: Pandey A, Hale D, Das S, Goddings AL, Blakemore SJ, Viner RM. Effectiveness of universal self-regulation–based interventions in children and adolescents: A systematic review and meta-analysis. JAMA pediatrics. 2018 Jun 1;172(6):566-75.

Emotional problems: Caldwell DM, Davies SR, Thorn JC, Palmer JC, Caro P, Hetrick SE, Gunnell D, Anwer S, López-López JA, French C, Kidger J. School-based interventions to prevent anxiety, depression and conduct disorder in children and young people: a systematic review and network meta-analysis.

Aggressive, disruptive, oppositional behaviours: Smith S, Barajas K, Ellis B, Moore C, McCauley S, Reichow B. A meta-analytic review of randomized controlled trials of the good behavior game. Behavior Modification. 2021 Jul;45(4):641-66.

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treat-ment as usual	Relative (95% CI)	Absolute (95% CI)		
Psychosocial well-being (self-regulation)												
42	randomized trials	serious[a]	serious[b]	not serious	not serious	none	6 268	4 894	-	SMD **0.4 SD higher** (0.31 higher to 0.48 higher)	⨁⨁◯◯ Low	CRITICAL
Emotional problems (depressive symptoms) - post-intervention												
12	randomized trials	very serious[c]	serious[d]	not serious	serious[e]	none	2 485	2 126	-	SMD **0.14 SD lower** (0.44 lower to 0.17 higher)	⨁◯◯◯ Very low	CRITICAL
Emotional problems (depressive symptoms) - 6-12 month follow-up												

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treat-ment as usual	Relative (95% CI)	Absolute (95% CI)		
9	randomized trials	very serious[c]	serious[d]	not serious	serious[e]	none	2 865	2 257	-	SMD **0.15 SD lower** (0.43 lower to 0.09 higher)	⨁◯◯◯ Very low	CRITICAL
Emotional problems (anxiety symptoms) - post intervention												
14	randomized trials	very serious[c]	serious[d]	not serious	serious[e]	none	3 005	2 653	-	SMD **0.07 SD lower** (0.23 lower to 0.05 higher)	⨁◯◯◯ Very low	CRITICAL
Emotional problems (anxiety symptoms) - 6-12 month follow-up												
9	randomized trials	very serious[c]	serious[f]	not serious	serious[e]	none	3 013	2 402	-	SMD **0.11 SD lower** (0.35 lower to 0.11 higher)	⨁◯◯◯ Very low	CRITICAL
Depression and anxiety (diagnosis)												
0									not estimable		-	CRITICAL
Aggressive/disruptive/oppositional behaviours (conduct problems, teacher-rated)												

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treat-ment as usual	Relative (95% CI)	Absolute (95% CI)		
5	randomized trials	very serious[c]	not serious	not serious	not serious	none	1 453	1 163	-	SMD **0.095 SD lower** (0.011 lower to 0.178 lower)	⨁⨁◯◯ Low	IMPORTANT
Aggressive/disruptive/oppositional behaviours (conduct problems, peer-rated)												
3	randomized trials	very serious[c]	not serious	not serious	not serious	none	665	678	-	SMD **0.19 SD lower** (0.002 lower to 0.378 lower)	⨁⨁◯◯ Low	IMPORTANT
Conduct dissocial disorder (diagnosis)												
0									not estimable		-	IMPORTANT
Self-harm												
0									-	-	-	IMPORTANT
Stigma												
0									not estimable		-	IMPORTANT

I: confidence interval; **SMD:** standardized mean difference

a. Downgrade by one for risk of bias; studies reported to be predominantly moderate-quality, with limited disaggregation available by three main domains. Unable to assess beyond what authors reported due to lack of RoB table.
b. Downgrade by one for inconsistency; I^2 value of 77%
c. Downgrade by two for risk of bias; all studies included had high risk of bias in one of three domains
d. Downgrade by one for inconsistency; authors report moderate heterogeneity from between-study posterior median SD, measured using Tau
e. Downgrade by one for imprecision; 95% CI spanning appreciable benefit and no effect
f. Downgrade by one for inconsistency; authors report substantial heterogeneity from between-study posterior median SD, measured using Tau

Table 3: Should psychosocial interventions vs treatment as usual be used with children ages 5-10 years whose parents are diagnosed with mental health conditions?

Author(s): Christina Laurenzi, Sarah Skeen, Caitlin Briedenhann, Sihle Mamutse

Question: Psychosocial interventions compared to treatment as usual for children ages 5-10 of parents with mental health conditions

Setting:

Bibliography: Lannes, A., Bui, E., Arnaud, C., Raynaud, J., & Revet, A. (2021). Preventive interventions in offspring of parents with mental illness: A systematic review and meta-analysis of randomized controlled trials. Psychological Medicine, 51(14), 2321-2336. doi:10.1017/S0033291721003366

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treatment as usual	Relative (95% CI)	Absolute (95% CI)		
Psychosocial well-being												
0									not estimable		-	CRITICAL
Emotional problems (internalizing problems) - post-intervention												
9	randomized trials	very serious[a]	not serious	serious[b]	not serious	none	628	610	-	SMD **0.25 SD lower** (0.37 lower to 0.14 lower)	⨁◯◯◯ Very low	CRITICAL
Emotional problems (internalizing problems) - short-term follow-up												
10	randomized trials	serious[c]	not serious	serious[b]	not serious	none	636	614	-	SMD **0.2 SD lower** (0.37 lower to 0.03 lower)	⨁⨁◯◯ Low	CRITICAL
Emotional problems (internalizing problems) - long-term follow-up												

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treatment as usual	Relative (95% CI)	Absolute (95% CI)		
5	randomized trials	very serious[a]	serious[d]	serious[b]	very serious[e]	none	333	330	-	SMD **0.2 SD higher** (0.25 lower to 0.65 higher)	⨁◯◯◯ Very low	CRITICAL
Depression and anxiety (diagnosis)												
5	randomized trials	not serious	not serious	serious[b]	not serious	none	110/500 (22.0%)	162/492 (32.9%)	**RR 0.53** (0.34 to 0.84)	**155 fewer per 1000** (from 217 fewer to 53 fewer)	⨁⨁⨁◯ Moderate	CRITICAL
Aggressive/disruptive/oppositional behaviours (externalizing problems) - post-intervention												
10	randomized trials	very serious[a]	not serious	serious[b]	serious[f]	publication bias strongly suspected[g]	477	455	-	SMD **0.11 SD lower** (0.27 lower to 0.04 higher)	⨁◯◯◯ Very low	IMPORTANT
Aggressive/disruptive/oppositional behaviours (externalizing problems) - short-term follow-up												
10	randomized trials	serious[c]	not serious	serious[b]	serious[h]	none	540	505	-	SMD **0.06 SD higher** (0.15 lower to 0.26 higher)	⨁◯◯◯ Very low	IMPORTANT

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	psychosocial interventions	treatment as usual	Relative (95% CI)	Absolute (95% CI)		
Aggressive/disruptive/oppositional behaviours (externalizing problems) - long-term follow-up												
6	randomized trials	very serious[a]	not serious	serious[b]	serious[f]	none	367	364	-	SMD **0.04 SD lower** (0.22 lower to 0.14 higher)	⨁◯◯◯ Very low	IMPORTANT
Conduct dissocial disorder (diagnosis)												
0									not estimable		-	IMPORTANT
Self-harm												
0									not estimable		-	IMPORTANT
Stigma												
0									not estimable		-	IMPORTANT

CI: confidence interval; **RR:** risk ratio; **SMD:** standardized mean difference

a. Downgrade by two for risk of bias; over 30% of studies in this outcome have high risk of bias in one domain of interest ("if interventional and blinding of investigators possible, was it reported?" marked as not fulfilled in QUALSYST quality assessment)

b. Downgrade by one for indirectness; age, implementers, and intervention country are not necessarily generalizable for main question and for global guidelines

c. Downgrade by one for risk of bias; 30% of studies in this outcome have high risk of bias in one domain of interest ("if interventional and blinding of investigators possible, was it reported?" marked as not fulfilled in QUALSYST quality assessment)

d. Downgrade by one for inconsistency; I^2 value between 75-90%

e. Downgrade by two for imprecision; 95% confidence interval spans appreciable harm and appreciable benefit
f. Downgrade by one for imprecision; 95% confidence interval spans no effect and appreciable benefit
g. Publication bias suspected based on funnel plot
h. Downgrade by one for imprecision; 95% confidence interval spans appreciable harm and no effect

3.5. Additional evidence not mentioned in GRADE tables

The studies listed in this section were not included in the GRADE tables because either they did fulfil the all the of the criteria for inclusion, or they not appropriately disaggregate outcomes by population or age. However, they provide useful additional information, including on parenting-focused interventions.

3.5.1. All children (universally delivered interventions)

3.5.1.1. Psychosocial well-being

Fenwick-Smith et al. (2018) conducted a systematic review on universally delivered programmes to build resilience in children aged 5-12 years in primary school settings. They did not conduct a meta-analysis but narratively reviewed a range of relevant interventions. Quantitative, qualitative or mixed methods evaluation studies were eligible. Eleven studies reporting on seven programmes were included in this review; six focused on children younger than 10 years. Interventions included skills development, coping skills, help-seeking behaviours, stress management, and mindfulness. Programmes included Mindfulness-Based Stress Reduction, Strong Start, Learn Young, Learn Fair, Zippy's Friends, the RALLY programme, the UP programme, and the You Can Do It! (YCDI!) Education program. Teacher-delivered interventions performed well, and the duration of the intervention did not appear to predict programme effectiveness. Few interventions showed sustained effects across the long term. There was moderate evidence of adaptability and transferability to different contexts. For example, evaluations of the UP programme and Zippy's Friends showed evidence of teachers adapting interventions to their classroom's specific needs while still retaining high levels of programme fidelity.

3.5.1.2. Emotional problems (internalizing problems, symptoms of depression and anxiety)

Werner-Seidler et al. conducted a systematic review on school-based interventions designed to prevent depressive or anxiety symptoms (Werner-Seidler et al. 2021). The authors included 130 publications from 118 trials including 45 924 participants in the review. This review was very similar in scope to the selected review (Caldwell et al.), and included many of the same trials; however, Caldwell's review had a higher quality rating with more comprehensively presented evidence.

In 28 (24%) of studies in the review, interventions involved children aged 10 years or younger, and 18 (64%) of these were aimed at reducing anxiety symptoms. Seven (25%) were focused on both anxiety and depression and three (11%) were focused exclusively on depressive symptom prevention. The authors reported small between-group effect sizes for depression and anxiety immediately post-intervention. Subgroup analyses showed that targeted prevention programs (for young people with risk factors or symptoms) had larger effect sizes than universal programs. The use of external providers conferred benefit over teacher or school-staff delivered programs. Digital interventions appeared to be similar to face-to-face interventions in terms of effect size; however, there were considerably fewer digital interventions, meaning that this finding should be interpreted with caution.

Additionally, Yap et al. (2016) examined the long-term effects of preventive parenting interventions for child and adolescent internalizing problems (Yap et al., 2016). They included 42 studies for meta-analysis across ages 0-18 and including universal, targeted, and indicated samples. Studies were included if the interventions targeted child outcomes indirectly via parents as mediator, and outcomes included internalizing problems (including anxiety, depressive symptoms). Results indicated a minimal reduction of child internalizing, depressive, and anxiety symptoms at 6 months follow-up, with very small effects. More substantial effects were found on anxiety than depressive symptoms, showing promise for the role of parents in supporting better child internalizing outcomes.

3.5.1.3. Aggressive, disruptive, oppositional behaviours

Beelmann & Lösel updated a prior meta-analysis examining child social skills training on antisocial development, examining aggression, delinquency, oppositional/disruptive behaviour, and general antisocial behaviour (Beelmann & Lösel, 2021). The review identified 113 studies with 130 eligible RCT comparisons between intervention and control groups, and included universal, targeted, and indicated interventions in a range of sites (school, family, and community). In total, studies involved 31 114 children and adolescents (mean n = 262.2 per study), and all but one of the 98 reports were conducted in high-income countries. CBT was the most common theoretical approach in identified interventions, and outcomes were included if they used rating scales, behaviour observations, official records, and/or peer nominations. For the age group between 9-10 years, there was a high, significant effect size for universal interventions, however, the most pronounced moderator effect identified across age groups was for indicated interventions.

A number of reviews of parenting interventions were identified during the search process. Shorey & Ng (2021) quantitatively evaluated the efficacy of mindful parenting interventions focusing on parenting mindfulness and parenting behaviours with parenting stress, psychological well-being, interpersonal relationships, and child behaviour as secondary outcomes (Shorey & Ng, 2021). From a sample of 11 studies included, only three focused on child behaviours; while these few studies were not meta-analysed, two showed moderate reductions in intervention children's behaviour problems. Spencer et al. (2020) conducted a meta-analysis of online parenting programs (Spencer et al., 2020), with a final sample of 28 studies involving parents of children ages 0-18. Outcomes linked to children included child problem behaviours, child anxiety levels, and positive child behaviours, in addition to a number of parent-specific outcomes. Programmes included both clinically-supported programmes—where parents had access to content experts, therapists, or other professionals—as well as those delivering online content/modules only. Results indicated that online parenting programmes had significantly small-to-moderate effects in decreasing child problem behaviour and large, significant effects on a number of additional outcomes linked to parenting. There were no significant differences between strength of effect in programmes with clinical support and those without, or between targeted and general populations. Chen et al. performed a meta-analysis on the effects of parenting programmes on bullying prevention with outcomes of psychological well-being (children's empathy), emotional problems (children's depression), and parenting strategies. In the 16 studies reviewed, students were largely recruited from schools (k = 12) and some studies recruited parents directly (k = 4), with children ages 4-15. The intervention strategies varied across programs with parent training content focused on ways to reduce bullying such as providing information about support services, teaching problem-solving, and enhancing parenting skills, including home-based activities with children. Small improvements in children's empathy may contribute to bullying reduction; however, the authors noted that more research in needed in this area.

3.5.1.4. Self-harm

Baux-Cazal et al. conducted a systematic review and narrative synthesis of studies focusing on the prevention of suicide behaviour amongst children under the age of 13 years (Baux-Cazal et al., 2016). The authors included 33 studies in their review, focusing on interventions aiming to prevent suicide in young children. The narrative synthesis examined preventive interventions for this age group that supported better identification of suicidal ideation as well as suicide attempts. Intervention modalities surveyed included social programs, maltreatment prevention, curriculum-based suicide prevention programs, suicide screening in schools, gatekeepers, reduction of access of lethal means of suicide, suicide screening by primary care, and postvention programs with bereaved individuals. Programmes such as school-based suicide prevention programs and the use of gatekeepers have been shown to increase knowledge about suicide and help-seeking, and postvention programmes have been found to reduce psychological distress in the short term.

However, the authors concluded that the evidence base is extremely limited, and few measures exist to adequately screen and capture young adolescents with suicidal ideation.

3.5.1.5. Mental health stigma

Ma et al. conducted a systematic literature review to evaluate evidence from RCTs that examine the effectiveness of school-based mental health literacy interventions and stigma reduction programmes for children and young people between the ages of 4-18 years in primary and secondary educational settings (Ma et al., 2022). Reduction in mental health stigma was defined as attitudes and beliefs about mental disorders as well as one's emotional responses and behavioural intentions towards people with mental disorders. The authors included 22 studies of 21 interventions in the final narrative review. The majority of studies focused on secondary school-aged children (k = 20) with only 2 studies focused on primary school-aged children. Some of these interventions integrated "contact" with people with lived experiences of mental health conditions as part of a stigma-reduction aspect, with mixed conclusions on the value of this strategy. More than half of studies showed statistically significant reduction in mental health stigma. Overall, there was moderate evidence for school-based mental health interventions to reduce mental health-related stigma.

3.5.2. Subgroups (targeted interventions)

As noted above, we sought to identify reviews of interventions for sub-groups of children exposed to additional mental health risks based on an initial scoping of the literature. Potential subgroups included children with parents with mental health conditions, children in families experiencing complex and multiple problems, children from forcibly displaced families, children experiencing migration or displacement, and children with disabilities. Of the reviews identified, based on criteria for fit and suitability of the review, none were selected for inclusion in GRADE. However, they provide valuable insights into the evidence base for targeted prevention for children ages 5-10.

3.5.3. Children in families experiencing multiple, complex problems

Van Assen et al. conducted a systematic review on home visiting interventions aimed at children between the ages of 5 and 18 in families experiencing multiple, complex problems (Van Assen et al. 2020). They included studies of home visiting interventions for these families, but excluded universally delivered home visiting interventions as part of usual pre-natal, post-natal or early childhood care. The authors included 50 studies in the review, of which 24 reported on children's emotional and behavioural problems. The majority of studies included in this review took place in the Netherlands, as this terminology is specific to Dutch models of interventions, which potentially limited the scope of this review. Many of these studies included children with clinical levels of behaviour problems before the intervention, and only two of the 24 studies were randomized control trials. Children showed a decrease in emotional and behavioural problems. However, there was substantial heterogeneity. Furthermore, only 12 studies reported on externalizing symptoms and internalizing outcomes separately. Overall, home visiting interventions were found to have a moderate impact on improving emotional and behavioural problems. Authors noted that more long-term and collaborative approaches to care for families are needed for this targeted population.

Additionally, Latzman et al. (2019) systematically reviewed interventions that aimed to promote the well-being of children ages 0-18 exposed to intimate partner violence (IPV) (Latzman et al., 2019). This Campbell review included eight studies and gathered information on three outcomes: child behaviour, externalizing problems, and internalizing problems. The differences in measures used by interventions showed that in-home intensive services (parent training and emotional support) decreased child externalizing behaviour and clinical levels of behaviour problems in children exposed to IPV, especially at immediate posttreatment and 8 months follow-up.

Additionally, intervention targeted at non-offending parents recorded the largest effects, followed by those targeting the family together. Interventions in the home setting recorded large effect sizes compared to outpatient settings. A meta-analysis was only performed for externalizing problems, with only two studies by the same author team ultimately included in the meta-analysis.

3.5.4. Children in families experiencing forced displacement

Trimboli et al. conducted a systematic review on psychosocial interventions for children aged 6-12 years who have been forcibly displaced (Trimboli et al. 2021). Eligible children could have been displaced due to war or fear of persecution based on their race, religion, nationality, membership in a particular social group, or political opinion. Nineteen studies were included in the review, with a total of n 2 386 participants. Studies were based in both low- and middle-income countries (k = 10), and high-income countries (k = 9). Five studies included children with existing mental health, psychological, emotional, or behavioural problems. Interventions included a range of psychosocial and therapeutic components. They were delivered across different settings, including school settings, refugee centres and community spaces; they utilized both individual and group delivery methods. Common implementers included lay counsellors, teachers, qualified therapists and psychiatrists.

The meta-analysis combined diverse types of mental health outcomes to assess effect (k = 17). The RCTs alone showed a negligible combined intervention effect that was not statistically significant. For combined psychosocial interventions, the overall treatment effect was moderate. Emerging promising interventions were Narrative Exposure Therapy for children and adolescents (KidNET), CBT, structured play (Child-Centred Play Therapy), Eye Movement Desensitization and Reprocessing, and creative interventions, while unstructured play or education alone did not produce a beneficial intervention effect. Meditation and relaxation interventions may also show promise for low- and middle-income settings, as they are less resource-intensive and can be integrated in school settings. Strengthening family and community supports may also increase the intervention effects of psychosocial intervention approaches and few interventions included these aspects. Additional training and ongoing mental health professional support was available across interventions, which appeared to play a critical role in their effectiveness. As few RCTs were included in this review, future studies should focus on more rigorous study designs.

3.5.5. Families experiencing migration or displacement

Uphoff et al. conducted an overview of systematic reviews for the Cochrane Collaboration, where the target population were refugees, asylum seekers and internally displaced persons of all ages (Uphoff et al. 2020). Reviews on promotion, prevention, and treatment of mental health disorders were eligible for inclusion, with few reviews distinguishing amongst approaches. The review included 23 published systematic reviews with 175 unique primary studies; a portion of reviews conducted meta-analyses (k = 8). Six reviews reported on depression and anxiety, and the remainder reported on PTSD and related symptoms. Intervention studies could include participants with diagnoses or elevated symptoms as well as participants with no symptoms, and encompassed a range of delivery methods and therapeutic modalities. The majority of the reviews were on interventions for the treatment of PTSD or trauma-related symptoms for all ages. Importantly, few reviews focused on mental health promotion, prevention, and treatment for children (k = 4), only one of which was a meta-analysis. Further reviews for this population should focus on identifying child-targeted interventions that specifically examine the role of prevention and promotion of mental health in addition to treatment approaches.

3.5.6. Children with disabilities

A small number of reviews focused on children with disabilities. Two were meta-analyses: Lory et al. conducted a meta-analysis on the impact of interventions on reducing challenging behaviours

in inclusive educational settings for children with disabilities, and Walker et al. focused on behavioural interventions known as function-based interventions (Lory et al., 2020; Walker et al., 2018). Both reviews relied on single-case experimental designs with relatively small sample sizes. Lory et al. included 15 high quality studies with 27 participants, and Walker et al. focused on 27 studies with a total of 45 participants. Studies had to include children with at least one disability, such as autism spectrum disorder, intellectual disability or developmental delay. Across both studies, approximately half of students were of primary-school age. Lory et al. (2020) found that interventions that target the reduction in challenging behaviour are effective when embedded into the general education curriculum. The interventions generated a strong overall effect. Ten studies relied on reinforcing replacement behaviour, which is when alternative desirable behaviour is taught or reinforced to replace challenging behaviour. Walker et al. (2018) found that function-based interventions which are behavioural interventions aimed at preventing challenging behaviours and increasing appropriate behaviours were effective for challenging behaviour and for appropriate behaviour. In both reviews, the interventions were mostly implemented by school staff (mainly teachers), which was found to be beneficial compared to researchers and therapists in both reviews. Walker et al. also found that whole classroom implementation was better than smaller groups. Walker et al. and Lory et al. conclude that this shows the potential for inclusive implementation in classrooms.

Additionally, Susanty et al. (2021) systematically reviewed studies on cultural adaptations of psychosocial interventions for parents and their children with intellectual disabilities, in low- and middle-income countries (Susanty et al., 2021). Another study by Falla et al. (2021) systematically reviewed bullying in school children with disabilities (intellectual, physical, and sensory) (Falla et al., 2021). The interventions included only one CBT-based intervention, and the majority focused on components such as empathy, communication skills, problem-solving, friendship skills, emotional regulation, and resilience of both aggressors and victims. Neither of these studies utilized meta-analyses. Susanty et al. (2021) reported that interventions reduced the risk of depression and stress and increase coping strategies and positive perceptions of family functioning, indicating that parenting skills training may be associated with improved parent–child interactions and child development. As Falla et al. (2021) found, few interventions exist that are tailored by specific disability, and most interventions have small sample sizes, limiting their generalisability. This review indicated that there is a need for specialized instruments to measure outcomes across diverse disabilities and in large sample sizes.

3.5.7. LGBTQIA+ children

We did not locate any studies examining mental health among LGBTQIA+ children, although limited evidence is available for adolescents aged 12 and older. Bochicchio et al. (2022) found that mental health interventions including both CBT and non-CBT for LGBTQIA+ youth and administered by mental health professionals in hospital, community, and computer-based settings were likely beneficial (Bochicchio et al., 2022). Systematic reviews of digital health and psychotherapeutic interventions targeted at LGBTQIA+ young people aimed to improve health outcomes which included symptoms or diagnoses of mental disorders, well-being, distress or to prevent negative health outcomes (Bochicchio et al., 2022; Gilbey et al., 2020). However, very few interventions were targeted toward the improvement of mental health issues; more targeted interventions existed and were reported as effective in reducing internalizing symptoms such as depression and psychological distress (Gilbey et al., 2020).

4. From Evidence to Recommendations

4.1. Summary of findings

Table 4. Summary of findings table

Psychosocial interventions compared to treatment as usual for children ages 5-10						
Patient or population: children ages 5-10 **Setting:** **Intervention:** psychosocial interventions **Comparison:** treatment as usual						
Outcome № of participants (studies)	**Relative effect (95% CI)**	**Anticipated absolute effects (95% CI)**			**Certainty**	**What happens**
				Difference		
Psychosocial well-being (self-regulation) № of participants: 11 162 (42 RCTs)	-	-	-	SMD **0.4 SD higher** (0.31 higher to 0.48 higher)	⨁⨁◯◯ Low[a,b]	Psychosocial interventions may improve psychosocial well-being for children ages 5-10 when compared to treatment as usual.
Emotional problems (depressive symptoms) - post-intervention № of participants: 4 611 (12 RCTs)	-	-	-	SMD **0.14 SD lower** (0.44 lower to 0.17 higher)	⨁◯◯◯ Very low[c,d,e]	It is not known whether psychosocial interventions prevent emotional problems (depressive symptoms) at post-intervention for children ages 5-10 when compared to treatment as usual.
Emotional problems (depressive symptoms) - 6-12 month follow-up № of participants: 5 122 (9 RCTs)	-	-	-	SMD **0.15 SD lower** (0.43 lower to 0.09 higher)	⨁◯◯◯ Very low[c,d,e]	It is not known whether psychosocial interventions prevent emotional problems (depressive symptoms) at 6-12 month follow-up for children ages 5-10 when compared to treatment as usual.
Emotional problems (anxiety symptoms) - post intervention № of participants: 5 658 (14 RCTs)	-	-	-	SMD **0.07 SD lower** (0.23 lower to 0.05 higher)	⨁◯◯◯ Very low[c,d,e]	It is not known whether psychosocial interventions prevent emotional problems (anxiety symptoms) at post-intervention for children ages 5-10 when compared to treatment as usual.

Psychosocial interventions compared to treatment as usual for children ages 5-10						
Patient or population: children ages 5-10 **Setting:** **Intervention:** psychosocial interventions **Comparison:** treatment as usual						
Outcome № of participants (studies)	**Relative effect (95% CI)**	**Anticipated absolute effects (95% CI)**			**Certainty**	**What happens**
				Difference		
Emotional problems (anxiety symptoms) - 6-12 month follow-up № of participants: 5 415 (9 RCTs)	-	-	-	SMD **0.11 SD lower** (0.35 lower to 0.11 higher)	⊕◯◯◯ Very low[c,e,f]	It is not known whether psychosocial interventions prevent emotional problems (anxiety symptoms) at 6-12 month follow-up for children ages 5-10 when compared to treatment as usual.
Depression, anxiety (diagnosis) № of participants: (0 studies)	not estimable	-	-	-	-	
Aggressive/disruptive/oppositional behaviours (conduct problems, teacher-rated) № of participants: 2 616 (5 RCTs)	-	-	-	SMD **0.095 SD lower** (0.011 lower to 0.178 lower)	⊕⊕◯◯ Low[c]	Psychosocial interventions may prevent aggressive, disruptive, or oppositional behaviours (teacher-rated conduct problems) among children ages 5-10 compared to treatment as usual.
Aggressive/disruptive/oppositional behaviours (conduct problems, peer-rated) № of participants: 1 343 (3 RCTs)	-	-	-	SMD **0.19 SD lower** (0.002 lower to 0.378 lower)	⊕⊕◯◯ Low[c]	Psychosocial interventions may prevent aggressive, disruptive, or oppositional behaviours (peer-rated conduct problems) among children ages 5-10 compared to treatment as usual.
Conduct dissocial disorder (diagnosis) № of participants: (0 studies)	not estimable	-	-	-	-	
Self-harm № of participants: (0 studies)	-	-	-	-	-	

Psychosocial interventions compared to treatment as usual for children ages 5-10

Patient or population: children ages 5-10
Setting:
Intervention: psychosocial interventions
Comparison: treatment as usual

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Certainty	What happens
				Difference		
Stigma № of participants: (0 studies)	not estimable	-	-	-	-	

*__The risk in the intervention group__ (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
CI: confidence interval; **SMD:** standardized mean difference

GRADE Working Group grades of evidence
High certainty: we are very confident that the true effect lies close to that of the estimate of the effect.
Moderate certainty: we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
Low certainty: our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
Very low certainty: we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

a. Downgrade by one for risk of bias; studies reported to be predominantly moderate-quality, with limited disaggregation available by three main domains. Unable to assess beyond what authors reported due to lack of RoB table.
b. Downgrade by one for inconsistency; I^2 value of 77%
c. Downgrade by two for risk of bias; all studies included had high risk of bias in one of three domains
d. Downgrade by one for inconsistency; authors report moderate heterogeneity from between-study posterior median SD, measured using Tau
e. Downgrade by one for imprecision; 95% CI spanning appreciable benefit and no effect
f. Downgrade by one for inconsistency; authors report substantial heterogeneity from between-study posterior median SD, measured using Tau

Psychosocial interventions compared to treatment as usual for children ages 5-10 of parents with mental health conditions

Patient or population: children ages 5-10 of parents with mental health conditions
Setting:
Intervention: psychosocial interventions
Comparison: treatment as usual

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Certainty	What happens
				Difference		
Psychosocial well-being № of participants: (0 studies)	not estimable	-	-	-	-	
Emotional problems (internalizing problems) - post-intervention № of participants: 1 238 (9 RCTs)	-	-	-	SMD **0.25 SD lower** (0.37 lower to 0.14 lower)	⊕◯◯◯ Very low[a,b]	It is not known whether psychosocial interventions prevent emotional problems (internalizing problems) at post-intervention for children of parents with mental health conditions when compared to treatment as usual.
Emotional problems (internalizing problems) - short-term follow-up № of participants: 1 250 (10 RCTs)	-	-	-	SMD **0.2 SD lower** (0.37 lower to 0.03 lower)	⊕⊕◯◯ Low[b,c]	Psychosocial interventions may prevent emotional problems (internalizing problems) at short-term follow-up for children of parents with mental health conditions when compared to treatment as usual.
Emotional problems (internalizing problems) - long-term follow-up № of participants: 663 (5 RCTs)	-	-	-	SMD **0.2 SD higher** (0.25 lower to 0.65 higher)	⊕◯◯◯ Very low[a,b,d,e]	It is not known whether psychosocial interventions prevent emotional problems (internalizing problems) at long-term follow-up for children of parents with mental health conditions when compared to treatment as usual.

Psychosocial interventions compared to treatment as usual for children ages 5-10 of parents with mental health conditions

Patient or population: children ages 5-10 of parents with mental health conditions
Setting:
Intervention: psychosocial interventions
Comparison: treatment as usual

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Certainty	What happens
				Difference		
Depression, anxiety (diagnosis) № of participants: 992 (5 RCTs)	**RR 0.53** (0.34 to 0.84)	32.9%	**17.5%** (11.2 to 27.7)	**15.5% fewer** (21.7 fewer to 5.3 fewer)	⊕⊕⊕◯ Moderate[b]	Psychosocial interventions probably prevent depression and anxiety diagnoses in children of parents with mental health conditions when compared to treatment as usual.
Aggressive/disruptive/oppositional behaviours (externalizing problems) - post-intervention № of participants: 932 (10 RCTs)	-	-	-	SMD **0.11 SD lower** (0.27 lower to 0.04 higher)	⊕◯◯◯ Very low[a,b,f,g]	It is not known whether psychosocial interventions prevent aggressive, disruptive, or oppositional behaviours (externalizing problems) at post-intervention for children of parents with mental health conditions when compared to treatment as usual.
Aggressive/disruptive/oppositional behaviours (externalizing problems) - short-term follow-up № of participants: 1 045 (10 RCTs)	-	-	-	SMD **0.06 SD higher** (0.15 lower to 0.26 higher)	⊕◯◯◯ Very low[b,c,h]	It is not known whether psychosocial interventions prevent aggressive, disruptive, or oppositional behaviours (externalizing problems) at short-term follow-up for children of parents with mental health conditions when compared to treatment as usual.

Psychosocial interventions compared to treatment as usual for children ages 5-10 of parents with mental health conditions

Patient or population: children ages 5-10 of parents with mental health conditions
Setting:
Intervention: psychosocial interventions
Comparison: treatment as usual

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Certainty	What happens
				Difference		
Aggressive/disruptive/oppositional behaviours (externalizing problems) - long-term follow-up № of participants: 731 (6 RCTs)	-	-	-	SMD **0.04 SD lower** (0.22 lower to 0.14 higher)	⨁◯◯◯ Very low[a,b,f]	It is not known whether psychosocial interventions prevent aggressive, disruptive, or oppositional behaviours (externalizing problems) at long-term follow-up for children of parents with mental health conditions when compared to treatment as usual.
Conduct dissocial disorder (diagnosis) № of participants: (0 studies)	not estimable	-	-	-	-	
Self-harm № of participants: (0 studies)	not estimable	-	-	-	-	
Stigma № of participants: (0 studies)	not estimable	-	-	-	-	

*__The risk in the intervention group__ (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
CI: confidence interval; **RR:** risk ratio; **SMD:** standardized mean difference

Psychosocial interventions compared to treatment as usual for children ages 5-10 of parents with mental health conditions

Patient or population: children ages 5-10 of parents with mental health conditions
Setting:
Intervention: psychosocial interventions
Comparison: treatment as usual

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Certainty	What happens
				Difference		

GRADE Working Group grades of evidence
High certainty: we are very confident that the true effect lies close to that of the estimate of the effect.
Moderate certainty: we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
Low certainty: our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
Very low certainty: we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

a. Downgrade by two for risk of bias; over 30% of studies in this outcome have high risk of bias in one domain of interest ("if interventional and blinding of investigators possible, was it reported?" marked as not fulfilled in QUALSYST quality assessment)
b. Downgrade by one for indirectness; age, implementers, and intervention country are not necessarily generalizable for main question and for global guidelines
c. Downgrade by one for risk of bias; 30% of studies in this outcome have high risk of bias in one domain of interest ("if interventional and blinding of investigators possible, was it reported?" marked as not fulfilled in QUALSYST quality assessment)
d. Downgrade by one for inconsistency; I^2 value between 75-90%
e. Downgrade by two for imprecision; 95% confidence interval spans appreciable harm and appreciable benefit
f. Downgrade by one for imprecision; 95% confidence interval spans no effect and appreciable benefit
g. Publication bias suspected based on funnel plot
h. Downgrade by one for imprecision; 95% confidence interval spans appreciable harm and no effect

4.2. Evidence to decision

Table 5. Evidence to decision table

Please note * indicates evidence from overarching qualitative review by Gronholm et al, 2023

Note: Evidence review teams to populate sections on: Priority of the problem; Desirable effects; Undesirable effects; Certainty of evidence and Balance of effects. Sections on Values; Resources required; Cost effectiveness; Health equity, Equality and non-discrimination; Feasibility and Human rights and sociocultural acceptability, will also be informed by overarching reviews conducted by the secretariat.

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Priority of the problem	Is the problem a priority? The more serious a problem is, the more likely it is that an option that addresses the problem should be a priority (e.g. diseases that are fatal or disabling are likely to be a higher priority than diseases that only cause minor distress). The more people who are affected, the more likely it is that an option that addresses the problem should be a priority.			
	• Are the consequences of the problem serious (that is, severe or important in terms of the potential benefits or savings)? • Is the problem urgent? • Is it a recognized priority (such as based on a political or policy decision)? [Not relevant when an individual patient perspective is taken]	☐ No ☐ Probably no ☐ Probably yes ☒ **Yes** ☐ Varies ☐ Don't know	Child mental health is a priority issue, as the period between 5-10 years can set foundations for later mental health challenges, and also be a formative time to develop and practice social and emotional competencies that underpin later success in relationships, education, and employment (Feinstein & Bynner, 2004). While important on an individual level, child mental health has critical political, social, and economic consequences. However, it has yet to be fully recognized by policymakers as this period is often known as the "missing middle."	
Desirable Effects	How substantial are the desirable anticipated effects? The larger the benefit, the more likely it is that an option should be recommended.			
	• Judgements for each outcome for which there is a desirable effect • How substantial (large) are the desirable anticipated effects (including health and other benefits) of the option (taking into account the severity or importance of the desirable consequences and the number of people affected)?	☐ Trivial ☒ **Small** ☒ **Moderate** ☐ Large ☐ Varies ☐ Don't know	For universal interventions, clinically significant (> 0.2 or < -0.2) and moderate desirable effects were reported for psychosocial well-being only (SMD = 0.4, 95%CI: 0.31 - 0.48). For targeted interventions, clinically significant (> 0.2 or < -0.2) and small desirable effects were reported for emotional problems at post-intervention (SMD = -0.25 SD, 95%CI: -0.37 to -0.14) and short-term follow-up (SMD =-0.2, -0.37, -0.03), as well as for depression/anxiety diagnoses (RR = 0.53, 95%CI: 0.34 - 0.84).	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			Many RCTs have produced smaller effect sizes for universal interventions, with a possible ceiling effect that exists because of already-high baseline levels of psychosocial well-being or low levels of symptomology. Werner-Seidler et al. (2021) has suggested that more studies on universal prevention with larger samples need to be done to estimate the actual effect of universal preventative interventions.	
Undesirable Effects	How substantial are the undesirable anticipated effects? The greater the harm, the less likely it is that an option should be recommended.			
	• Judgements for each outcome for which there is an undesirable effect • How substantial (large) are the undesirable anticipated effects (including harms to health and other harms) of the option (taking into account the severity or importance of the adverse effects and the number of people affected)?	☐ Large ☐ Moderate ☐ Small ☒ **Trivial** ☐ Varies ☐ Don't know	For universal interventions, no significant undesirable effects were reported in the reviews included. There was some evidence on acceptability from Caldwell et al. (2021); eight studies in this review reported on acceptability of the intervention in universal primary settings, with generally positive findings. For targeted intervention with children of parents with mental health conditions: No significant undesirable effects were reported in the reviews included. It is anticipated that an adverse impacts from these non-pharmacological interventions would be minimal, and the potential benefits would outweigh any added burden that participation may entail. More acceptability research with targeted populations—for instance, parents with mental health conditions who enrol in interventions with their children—is needed.	
Certainty of evidence	What is the overall certainty of the evidence of effects? The less certain the evidence is for critical outcomes (those that are driving a recommendation), the less likely that an option should be recommended (or the more important it is likely to be to conduct a pilot study or impact evaluation, if it is recommended).			
	• What is the overall certainty of this evidence of effects, across all of the outcomes that are critical to making a decision? • See GRADE guidance regarding detailed judgements about the quality of evidence or certainty in estimates of effects	☒ **Very low** ☒ **Low** ☐ Moderate ☐ High ☐ No included studies	For universal intervention, four individual outcomes had very low certainty of evidence: emotional problems (depressive symptoms) at post intervention and 6-12 months follow-up, emotional problems (anxiety symptoms) at post intervention and 6–12-month follow-up. Three outcomes were low: 1) psychosocial well-being (self-regulation), 2) and 3) aggressive/	

CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
		disruptive/oppositional behaviours (conduct problems) both teacher-rated and peer-rated. In the self-regulation review by Pandey et al. 2018, a further meta-analysis showed that self-regulation interventions were effective across a range of intervention types; these included family-based interventions, curriculum-based interventions, yoga/mindfulness-based interventions, exercised-based interventions, and social/personal skills-focused interventions. For conduct problems, the Good Behaviour Game intervention was evaluated (Smith et al., 2021); this model reinforces prosocial behaviours and discourages disruptive behaviours, through a "soft competition," team-based approach which tracks class-based teams' rule-following or rule-breaking over a given "game period." Privileges are given to teams with fewer violations. The GDG agreed on an overall rating of **very low** for universal interventions. For targeted intervention for children of parents with mental health conditions, five individual outcomes had very low certainty evidence: emotional problems (internalizing problems) at post intervention and long-term follow-up, and aggressive/ disruptive/oppositional behaviours (externalizing problems) at post-intervention, short-term, and long-term follow-up. One outcome had low certainty: emotional problems (internalizing problems) at short-term follow-up. Contributing studies were heterogeneous, including family group-based therapeutic interventions (Compas et al. 2009, in Lannes et al. 2021); youth group-based cognitive behavioural prevention (Garber et al., in Lannes et al. 2021); medication or CBT group intervention (Coiro et al. 2012 in Lannes et al. 2021); behavioural couples group therapy including with parents skills intervention (Lam et al., 2008 in Lannes et al. 2021). One outcome had moderate certainty (depression/anxiety diagnosis). In reviewing the trials contributing to this outcome, a combination of family group-	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			based interventions (using cognitive-behavioural techniques) and youth group-based interventions (for slightly older children and young/middle adolescents) were utilized. Specific approaches included Focus of Families (Haggerty et al. 2008, in Lannes et al. 2021), and Coping and Promoting Strengths (Ginsburg et al. 2015, in Lannes et al. 2021). The GDG agreed on an overall rating of **low** for universal interventions.	
Values	Is there important uncertainty about or variability in how much people value the main outcomes? The more likely it is that differences in values would lead to different decisions, the less likely it is that there will be a consensus that an option is a priority (or the more important it is likely to be to obtain evidence of the values of those affected by the option). Values in this context refer to the relative importance of the outcomes of interest (how much people value each of those outcomes). These values are sometimes called "utility values".			
	• Is there important uncertainty about how much people value each of the main outcomes? • Is there important variability in how much people value each of the main outcomes?	☐ Important uncertainty or variability ☐ Possibly important uncertainty or variability ☐ Probably no important uncertainty or variability ☒ **No important uncertainty or variability**	Improving psychosocial well-being and reducing emotional and behavioural problems and disorders among children is generally recognized as of great value by children, caregivers and policy planners. The recognition of the importance of children's well-being and mental health promotion among children has significantly increased in the past few years and during COVID-19 pandemic.	
Balance of effects	Does the balance between desirable and undesirable effects favour the intervention or the comparison? The larger the desirable effects in relation to the undesirable effects, taking into account the values of those affected (i.e. the relative value they attach to the desirable and undesirable outcomes) the more likely it is that an option should be recommended.			
	• Judgements regarding each of the four preceding criteria • To what extent do the following considerations influence the balance between the desirable and undesirable effects: - How much less people value outcomes that	☐ Favours the comparison ☐ Probably favours the comparison ☐ Does not favour either the	For both universal and targeted interventions, the overall meta-analysed outcomes favour of the interventions. These interventions are not associated with adverse effects of participation. Children and caregivers are likely to support participation in interventions that build psychosocial well-being, prevent emotional problems, and prevent aggressive, disruptive,	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
	are in the future compared to outcomes that occur now (their discount rates)? - People's attitudes towards undesirable effects (how risk averse they are)? - People's attitudes towards desirable effects (how risk seeking they are)?	intervention or the comparison ☒ Probably favours the intervention ☐ Favours the intervention ☐ Varies ☐ Don't know	and oppositional behaviour, both for the short and long term.	
Resources required	How large are the resource requirements (costs)? The greater the cost, the less likely it is that an option should be a priority. Conversely, the greater the savings, the more likely it is that an option should be a priority.			
	• How large is the difference in each item of resource use for which fewer resources are required? • How large is the difference in each item of resource use for which more resources are required? • How large an investment of resources would the option require or save?	☐ Large costs ☐ Moderate costs ☐ Negligible costs and savings ☐ Moderate savings ☐ Large savings ☒ **Varies** ☐ Don't know	Pandey et al. (2018) suggested that curriculum-based programs may use fewer resources as they are often delivered in schools by trained, already employed teachers. Caldwell et al. (2021) conducted an economic evaluation on the studies included in the review and results from FRIENDS, a universal school-based CBT-based program which teaches children how to recognize anxiety indicated that the intervention was delivered by teachers or health educators. The scope of the study was condition-specific and a total of £62.96 per child (if teacher-delivered) and £59.16 per child (if health educator-delivered) (inflated to 2018 costs). Point estimates suggested the intervention was costly as compared to its effectiveness, and a probability of cost-effectiveness of < 35%. Caldwell et al. (2021) presented an estimate of intervention costs and consequences (SMDs), compared with usual curriculum for CBT interventions in universal primary school-age populations. Results indicated universal population intervention costs per student were estimated at £42. Compared to the usual curriculum, CBT did not significant prevent anxiety outcomes (SMD = -0.072, 95%CI: -0.234 to 0.051) or depression outcomes (SMD = -0.131, 95% CI: -0.441 to 0.174). Costs for universal interventions were more than half of those for targeted	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			interventions; targeted interventions showed evidence of clinical effect, but these estimates were also very imprecise. While cost sequence figures were estimated using specific settings, costs may be different when interventions occur in the real world. A cost sequence analysis suggested that there would be no room hire costs if intervention settings were schools, however, that might not be the case if the intervention is implemented during after school hours, as utility costs may apply (e.g. heating, lighting, or security). The authors suggested that an adequate cost–benefit must be evaluated for universal trials, and as school-based CBT for anxiety and depression was highly favoured, its cost effectiveness must be investigated. There is some emerging evidence that universal interventions can be more cost-effective than indicated interventions, however, this analysis is from an adolescent age group.	
Certainty of evidence of required resources	What is the certainty of the evidence of resource requirements (costs)?			
	• Have all-important items of resource use that may differ between the options being considered been identified? • How certain is the evidence of differences in resource use between the options being considered (see GRADE guidance regarding detailed judgements about the quality of evidence or certainty in estimates)? • How certain is the cost of the items of resource use that differ between the options being considered? • Is there important variability in the cost of the items of resource use that differ between the options being considered?	☒ **Very low** ☐ Low ☐ Moderate ☐ High ☐ No included studies	Very few studies that assess the costs and value for money of anxiety and depression interventions; when they do, they do not adequately consider all aspects (Caldwell et al. 2021). There is a lack of certainty of evidence about the costs and resources of universal interventions, and further studies where resources are adequately examined are required. Although studies often give detailed cost breakdowns for resources used in interventions, resources on delivery have not been adequately accounted for in studies on cost-effectiveness for universal interventions on anxiety and depression symptomology. For example, some studies have indicated little cost for teacher delivery and school premises (Caldwell et al., 2021). However, additional overlooked costs may include the time and salary implications for teachers or school psychologists. Another example could be school heating, lighting, or security overheads if the intervention is delivered outside school hours.	

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Cost effectiveness	Does the cost-effectiveness of the intervention favour the intervention or the comparison? The greater the cost per unit of benefit, the less likely it is that an option should be a priority.			
	• Judgements regarding each of the six preceding criteria • Is the cost effectiveness ratio sensitive to one-way sensitivity analyses? • Is the cost effectiveness ratio sensitive to multivariable sensitivity analysis? • Is the economic evaluation on which the cost effectiveness estimate is based reliable? • Is the economic evaluation on which the cost effectiveness estimate is based applicable to the setting(s) of interest?	☐ Favours the comparison ☐ Probably favours the comparison ☐ Does not favour either the intervention or the comparison ☒ **Probably favours the intervention** ☐ Favours the intervention ☐ Varies ☐ No included studies	There is a degree of disagreement about how cost-effective universal interventions are. Screening for symptoms and providing indicated interventions may be more cost-effective in terms of resource allocation (Le et al., 2021). However, screening for symptoms can often be unsuccessful due to the complexity of mental health (Fenwick-Smith et al. 2018). Le et al. (2021) conducted a systematic review on studies that examined the value for money of mental health prevention and promotion interventions. In total, 65 studies were included in the review and incremental cost-effectiveness ratio (ICER) or return on investment (ROI) ratio were the primary outcomes, with 23 studies targeting children and adolescents. Studies showed that interventions for mental health prevention were cost-effective; however, screening for mental health problems in more targeted populations may be more cost-effective. Bullying prevention interventions were also shown to have good value for money. Interestingly, three studies showed that both universal and targeted school-based interventions for the prevention of major depression disorder were equally good value for money. The studies included in this analysis followed a 10-year time horizon, and considered productivity costs and education sector costs, which may account for contrasting findings from two other trial-based evaluations that found that school-based CBT was not cost-effective. Long-term cost consequences that need to be considered against the costs of implementing the intervention (Caldwell et al. 2021). These might include medication, hospital stays/emergency visits, outpatient and general practitioner (GP) or psychological appointments. No studies have accounted for missing school, which can affect lifetime earning capacity. Few studies of cost-effectiveness have considered the impact that	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			educational attainment on cost outcomes or the fact that the impact of anxiety prevention could lead to reduction in depression and vice versa. Similarly, given limited cost-effectiveness studies on universal school-based interventions, more medium-term and long-term cost-effectiveness studies are needed (Schmidt et al. 2020). Importantly, it is difficult to generalize these conclusions to low- and middle-income countries, as there was limited evidence available from these countries. In another narrative review, Waddell et al. (2018) reported on the USA cost analysis findings that the Good Behaviour Game was good value for money when it comes to preventing conduct disorders.	
Health equity, equality and non-discrimination	What would be the impact on health equity, equality and non-discrimination? (WHO INTEGRATE) Health equity and equality reflect a concerted and sustained effort to improve health for individuals across all populations, and to reduce avoidable systematic differences in how health and its determinants are distributed. Equality is linked to the legal principle of non-discrimination, which is designed to ensure that individuals or population groups do not experience discrimination on the basis of their sex, age, ethnicity, culture or language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other characteristics. All recommendations should be in accordance with universal human rights standards and principles. The greater the likelihood that the intervention increases health equity and/or equality and that it reduces discrimination against any particular group, the greater the likelihood of a general recommendation in favour of this intervention.			
	• How are the condition and its determinants distributed across different population groups? Is the intervention likely to reduce or increase existing health inequalities and/or health inequities? Does the intervention prioritize and/or aid those furthest behind? • How are the benefits and harms of the intervention distributed across the population? Who carries the burden (e.g. all), who benefits (e.g. a very small sub-group)? • How affordable is the intervention for individuals, workplaces or communities? • How accessible - in terms of physical as well	☐ Reduced ☐ Probably reduced ☐ Probably no impact ☒ **Probably increased** ☐ Increased ☐ Varies ☐ Don't know	Universal interventions have the potential to reach a large cross-section of children, especially when delivered in settings such as schools, and equalize opportunities for children to enjoy optimal well-being and mental health across the life-course. However, the way in which these interventions are delivered and devised may be subject to existing biases, which should be accounted for in planning for implementation (Fenwick-Smith et al., 2018; Schmidt et al., 2020; Smith et al., 2021; Werner-Seidler et al., 2021). For instance, tailored approaches are required to reach and benefit out-of-school children and other children exposed to vulnerabilities. There are also equity considerations around targeted interventions. Targeted interventions for prevention in children	

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
	as informational access - is the intervention across different population groups? • Is there any suitable alternative to addressing the condition, does the intervention represent the only available option? Is this option proportionate to the need, and will it be subject to periodic review?		can help to alleviate important inequities in mental health access and service provision; however, these interventions have to be carefully designed and implemented within broader support structures (Lannes et al., 2021; Le et al., 2021; Schwartz et al., 2019; van Assen et al., 2020; Waddell et al., 2018). Lannes et al. (2021) examined studies to reduce incidence or symptoms of mental health in children of parents with mental health conditions. As the authors note, engaging families with a severe mental illness for an intensive programme can be complex; interventions may be experienced as intrusive, and communicating about children's risk for developing mental disorders may be stigmatizing or shameful for parents. As such, attrition and attendance are key issues to address in successfully implementing these kinds of interventions. The authors noted that, across studies, interventions that made efforts to engage families more intensively had greater effects on child symptoms and incidence. Additionally, with regards to equity of access and resourcing, these studies were delivered by psychologists, social workers or other highly trained professionals. Moving these interventions and evaluations from more clinical settings to other settings might support broader implementation and scalability to ensure that marginalized families are not excluded but will require careful consideration.	
Feasibility	Is the intervention feasible to implement? The less feasible (capable of being accomplished or brought about) an option is, the less likely it is that it should be recommended (i.e. the more barriers there are that would be difficult to overcome).			
	• Can the option be accomplished or brought about? • Is the intervention or option sustainable? • Are there important barriers that are likely to limit the feasibility of implementing the intervention (option) or require consideration when implementing it?	☐ No ☐ Probably no ☒ **Probably yes** ☐ Yes ☐ Varies ☐ Don't know	Overall, universal interventions as well as targeted interventions were found to be feasible to implement, with some important differences in resources requirements and structure for delivery. Fenwick-Smith et al. (2018) argued that using teachers to implement interventions to improve psychosocial well-being showed many benefits. These include cost-effectiveness, teachers' familiarity with their students' contexts, and fewer	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			barriers to implementation. Pandey et al. (2018) also found that teachers were the implementers of most curriculum-based interventions and that these were successful in improving self-regulation. Digital interventions delivered in school settings and supported by teachers show promise for cost-effectiveness and scale up potential while maintaining fidelity to the intervention (Fenwick-Smith et al., 2018; Smith et al., 2021; Werner-Seidler et al., 2021). However, there are still challenges and barriers for these types of interventions (Werner-Seidler et al., 2021). Some of these challenges include digital infrastructure access in low-resource communities and country settings and engaging young people without a face-to-face component. Although more evidence is needed, digital interventions aimed at preventing anxiety and depression showed promise as their effects did not differ significantly from face-to-face interventions. There was also no significant long-term difference for school personal delivery vs external personal delivery of the intervention and suggest that school staff supporting digital intervention could be feasible and scalable (Werner-Seidler et al., 2021). Lastly, it may be challenging to identify targeted groups, including children whose parents have diagnosed mental health conditions, impeding the feasibility of these interventions. Health facility-linked recruitment may be the easiest way to recruit into these interventions, however, more innovative or community-based approaches are possible and should be tested for feasibility to reach more individuals.	

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Human rights and sociocultural acceptability	Is the intervention aligned with human rights principles and socioculturally acceptable? (WHO INTEGRATE) This criterion encompasses two distinct constructs: The first refers to an intervention's compliance with universal human rights standards and other considerations laid out in international human rights law beyond the right to health (as the right to health provides the basis of other criteria and sub-criteria in this framework). The second, sociocultural acceptability, is highly time-specific and context-specific and reflects the extent to which those implementing or benefiting from an intervention as well as other relevant stakeholder groups consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention. The greater the sociocultural acceptability of an intervention to all or most relevant stakeholders, the greater the likelihood of a general recommendation in favour of this intervention.			
	• Is the intervention in accordance with universal human rights standards and principles? • Is the intervention socioculturally acceptable to patients/beneficiaries as well as to those implementing it? To which extent do patients/beneficiaries value different non-health outcomes? • Is the intervention socioculturally acceptable to the public and other relevant stakeholder groups? Is the intervention sensitive to sex, age, ethnicity, culture or language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other relevant characteristics? • How does the intervention affect an individual's, population groups, or organization's autonomy, i.e. their ability to make a competent, informed, and voluntary decision? • How intrusive is the intervention, ranging from low intrusiveness (e.g. providing the information) to intermediate intrusiveness (e.g. guiding choices) to high intrusiveness (e.g. restricting or eliminating choices)? Where	☐ No ☐ Probably no ☒ Probably yes ☐ Yes ☐ Varies ☐ Don't know	Prevention interventions delivered at the universal level can be vital in expanding access to mental health education and strategies for prevention; these are especially important early in the life course and are also in line with children's rights to enjoy optimal standards of health. Key approaches included cognitive-behavioural therapeutic approaches, as well as diverse interventions that use mindfulness, physical activity, social/personal skills development, and classroom behaviour strategies to improve mental health outcomes. These strategies are importantly tailorable by setting and context, and have been used. These interventions have been widely adapted across regions and sociocultural contexts and have shown generally good acceptability and relevance to both beneficiaries (such as children and their caregivers) as well as implementers (such as teacher or school counsellors). They also enhance children and families' capacities to make informed choices related to mental health-promoting behaviours and help-seeking behaviours. While there is some evidence of adaptation to specific settings, based on sociocultural acceptability and delivery setting (Fenwick-Smith et al. 2018), there are also adaptations that might be made to better enhance impact among subgroups—for instance by gender, ethnicity, and for children with disabilities. Targeted prevention interventions are similarly crucial in promoting the human rights and dignity of groups that may be at greater risk of developing mental health disorders. The review by	

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
	applicable, are high intrusiveness and/or impacts on the privacy and dignity of concerned stakeholders justified?		Lannes et al. (2021) also discussed differential benefits in their targeted intervention review, where children with no externalizing symptoms at baseline seemed to benefit more from the intervention than those with symptoms. It is possible that children whose parents have a mental health disorder diagnosis and who are already exhibiting symptoms themselves may require different approaches than those currently available; however, the authors urge that this finding should be interpreted with caution.	

4.3. Summary of judgements

Table 6. Summary of judgements

Priority of the problem	- Don't know	- Varies		- No	- Probably No	- Probably Yes	✓ **Yes**
Desirable effects*	- Don't know	- Varies		- Trivial	✓ **Small**	✓ **Moderate**	- Large
Undesirable effects*	✓ Don't know	- Varies		- Large	- Moderate	- Small	✓ **Trivial**
Certainty of the evidence*	- No included studies			✓ **Very low**	✓ **Low**	- Moderate	- High
Values				- Important uncertainty or variability	- Possibly important uncertainty or variability	- Probably no important uncertainty or variability	✓ **No important uncertainty or variability**
Balance of effects*	- Don't know	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	✓ **Probably favours intervention**	- Favours intervention
Resources required	- Don't know	✓ **Varies**	- Large costs	- Moderate costs	- Negligible costs or savings	- Moderate savings	- Large savings
Certainty of the evidence on required resources	- No included studies			✓ **Very low**	- Low	- Moderate	- High
Cost–effectiveness	- No included studies	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	✓ **Probably favours intervention**	- Favours intervention
Equity, equality and non-discrimination	- Don't know	- Varies	- Reduced	Probably reduced	- Probably no impact	✓ **Probably increased**	- Increased
Feasibility	- Don't know	- Varies		- No	- Probably No	✓ **Probably Yes**	- Yes
Human rights and sociocultural acceptability	- Don't know	- Varies		- No	- Probably No	✓ **Probably Yes**	- Yes

✓Indicates category selected, -Indicates category not selected
*Note: Separate ratings provided for universal and targeted interventions for these aspects.

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Appendix I: mhGAP process note

mhGAP Guideline Update: Notes on process for identifying level of evidence review required v2_0 (13/12/2021)

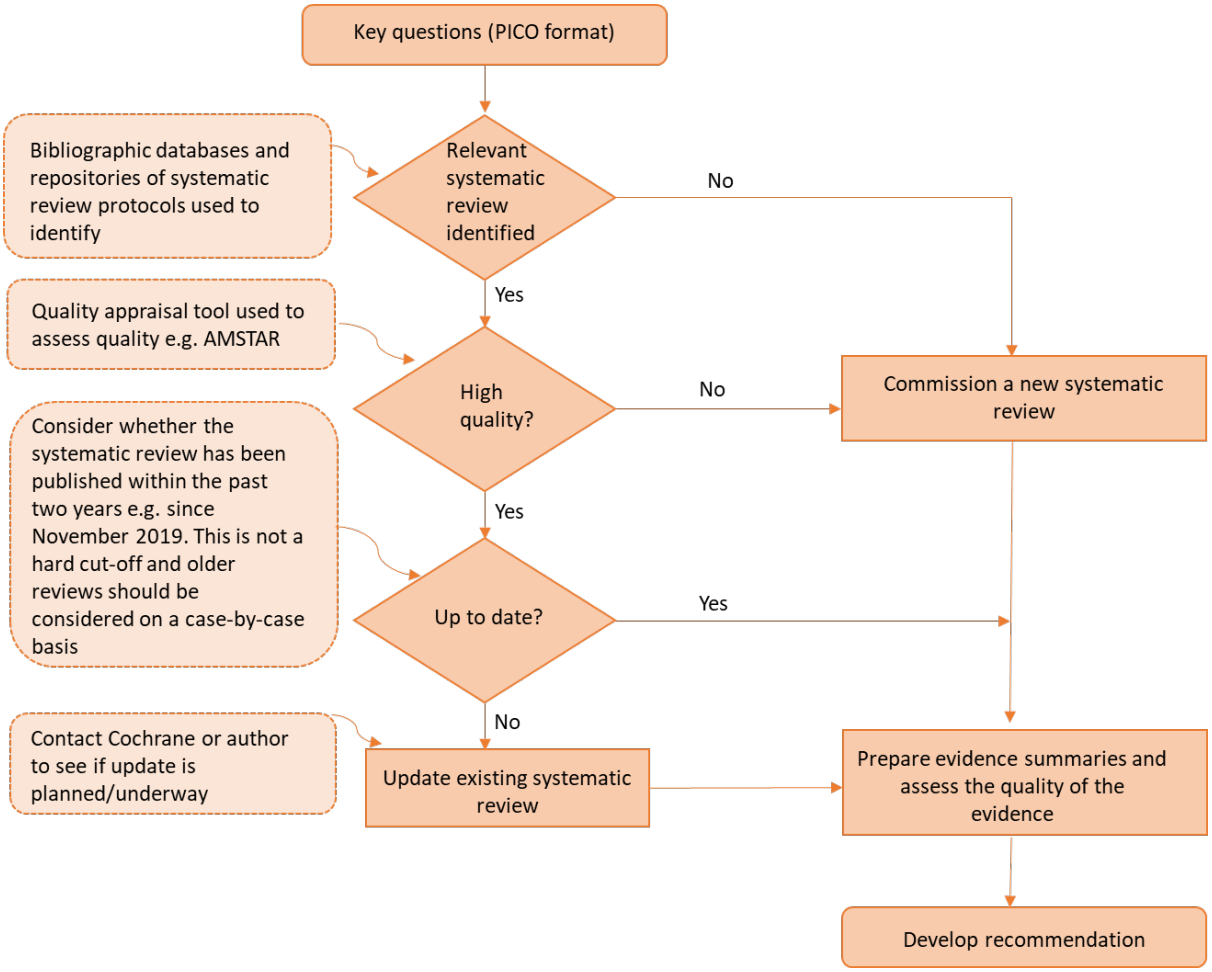
This document is intended to provide guidance to focal points on the level of evidence review required as part of the evidence retrieval process for the mhGAP guideline update process. As a general rule, the update process should be informed by existing high quality systematic reviews.
The process for evidence retrieval and synthesis is fully outlined in chapter 8 of the WHO handbook for guideline development https://apps.who.int/iris/handle/10665/145714.

Three main categories of evidence review are proposed in this document:

1) Existing relevant, up to date, high quality systematic review(s) provide the evidence required. **An existing systematic review is sufficient to prepare the evidence summaries**. It may be possible to include more than one systematic review for the same PICO, as different reviews may match different outcomes of a PICO. However, if more than one systematic review is available for the same PICO outcome, one review should be selected, based on quality, relevance, search comprehensiveness and date of last update. The selection process should be transparently reported, with justification of choices.
2) Existing high quality systematic reviews are either out of date or do not fully address the PICO, though it is considered that the review can be updated to meet these requirements. **An update of an existing systematic review is required before the evidence summaries can be prepared**. The update process may require addition of new studies published after the review, or inclusion of outcomes not covered by the existing reviews.
3) Existing systematic reviews are either not of sufficiently high quality or cannot be updated to fully address the PICO. **A new systematic review is required before the evidence summaries can be prepared**

Figure 1 below details the process to identify which level of evidence review is required to support the evidence retrieval process for a PICO.

Fig. 1. Is a new systematic review needed



All key questions are currently in PICO format as presented in the Appendix of the planning proposal PICOs. Subsequent steps include the following:

1. **Identify and evaluate existing systematic reviews**: Identify one or more systematic review(s) to address each PICO question. Existing systematic reviews will inform the guideline development process, whether or not a new systematic review or an update of an existing review is required, and the evidence review team will detail existing systematic reviews in each case. The method for identifying existing systematic reviews should be fully detailed in the evidence summary and include the following sources:
    a. Search of bibliographic databases, such as PubMed/MEDLINE, Embase, PsycInfo, Cochrane Central Register of Controlled Trials (CENTRAL), CINAHIL, Scopus, African Index Medicus, Index Medicus for the Eastern Mediterranean Region, Index Medicus for the South-East Asian Region, Latin American and Caribbean Health Sciences Literature, and Western Pacific Region Index Medicus.
    b. Search of repositories of systematic reviews protocols, including PROSPERO, Open Science Framework (OSF), and Cochrane.
2. **Assess if systematic review is up to date:** It is preferred that identified systematic reviews have been published within the past two years e.g. since November 2019. This is not a hard cut-off and older reviews should be considered on a case-by-case basis, particularly those covering the time period since the last update of the mhGAP guideline in 2015. It is acknowledged that COVID has led to a pausing of many mental health research activities over the past two years, and this may also impact the

availability of systematic reviews within the preferred two-year period. For any reviews that fall outside the two-year period, the guideline methodologist will advise on suitability.

3. **Appraise quality of systematic review:** Use the AMSTAR-2 quality appraisal tool to assess the quality of the identified systematic review(s) https://amstar.ca/docs/AMSTAR-2.pdf . This includes consideration of the extent to which the PICO is fully addressed by the systematic review(s) identified.

By following the process outlined in figure 1, and steps 1-3 above, the FP and evidence review team will have sufficient evidence to assess which of the three main categories of evidence review apply to each PICO under consideration:

1) Existing systematic reviews are sufficient to prepare the evidence summaries
2) An update of an existing systematic review is required before the evidence summaries can be prepared
3) A new systematic review is required before the evidence summaries can be prepared

Appendix II: Search terms used to identify systematic reviews

Database: **Cochrane Library**
Date: **21 February 2022**

ID	Search
#1	[mh child] or child:ti,ab or childhood:ti,ab or young:ti,ab or youngster:ti,ab or schoolchild:ti,ab or schoolchildren:ti,ab or preschool*:ti,ab or (pre next school*):ti,ab or girl:ti,ab or boy:ti,ab or primary-age:ti,ab or (primary next school*):ti,ab or (elementary next school*):ti,ab or prepubescen*:ti,ab or (pre next pubescen*):ti,ab or prepuber*:ti,ab or (pre next puberty):ti,ab or (pre next adolescen*):ti,ab or preadolescen* in Cochrane Reviews (Word variations have been searched)
#2	[mh "conduct disorder"] or "conduct disorder":ti,ab or “conduct disorders”ti,ab or (disruptive near/6 behavio*):ti,ab or (oppositional next behavio*):ti,ab or "oppositional defiant disorder":ti,ab or "oppositional defiant disorders":ti,ab or [mh bullying] or bully:ti,ab or bullying:ti,ab or (behavio* next disorder*):ti,ab or (behavio* near/4 problem*):ti,ab or delinquency:ti,ab or [mh aggression] or ("aggressive" next behavio*):ti,ab or [mh "child behavior disorders"] or [mh "social behavior disorders"] or (conduct near/4 problem*):ti,ab or (antisocial next behavio*):ti,ab or ("anti-social" next behavio*):ti,ab or (violent next behavio*):ti,ab or [mh "problem behavior"] or (problem next behavio*):ti,ab or (dysfunctional next behavio*):ti,ab or [mh "agonistic behavior"] or ("maladaptive" next behavio*):ti,ab or "hyperactivity disorder":ti,ab or "hyperactivity disorders":ti,ab or (challenging next behavio*):ti,ab or ("conduct-dissocial" next behavio*):ti,ab or (noncompliant next behavio*):ti,ab or ("non-compliant" next behavio*):ti,ab or ("intermittent explosive" next behavio*):ti,ab or externalis*:ti,ab or externaliz* or internalis*:ti,ab or internalis*:ti,ab or (offending next behavio*):ti,ab or [mh "attention deficit and disruptive behavior disorders"] or (“attention deficit” next disorder*):ti,ab or [mh “mental health”] or “mental health”:ti,ab or wellbeing:ti,ab or “well being”:ti,ab or [mh depression] or depress*:ti,ab or [mh anxiety] or anxiety:ti,ab or anxious*:ti,ab or [mh ^”mood disorders”] or (mood next disorder*):ti,ab or “self harm”:ti,ab or [mh “self injurious behavior”] or (self next injur*):ti,ab or (“self destructive” next behavio*):ti,ab or [mh “psychological distress”] or “psychological distress”:ti,ab or “emotional distress”:ti,ab or “emotional stress”:ti,ab in Cochrane Reviews (Word variations have been searched)
#3	intervention:ti,ab or interventions:ti,ab or prevent* or treatment:ti,ab or treatments:ti,ab or therapy:ti,ab or therapies:ti,ab or program:ti,ab or programs:ti,ab or programme:ti,ab or programmes:ti,ab or support:ti,ab or training:ti,ab or education:ti,ab or educational:ti,ab or psychoeducation:ti,ab or (psycho next education):ti,ab or (life next skill*):ti,ab or learning:ti,ab or (“cognitive behavioral” next strateg*:ti,ab) or (“cognitive behavioural” next strateg*:ti,ab) or [mh “cognitive behavior therapy”] or “cognitive behavior therapy”:ti,ab or “cognitive behaviour therapy”:ti,ab or “cognitive behavioral therapy”:ti,ab or “cognitive behavioural therapy”:ti,ab or CBT:ti,ab or promote:ti,ab or promotion:ti,ab or promotive:ti,ab in Cochrane Reviews (Word variations have been searched)
#4	#1 and #2 and #3 with Cochrane Library publication date Between January 2016 and December 2021

Database: **Epistemonikos**
Date: **20 February 2022**

SEARCH 1: 217 RECORDS
(advanced_title_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*) OR advanced_abstract_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*)) AND (advanced_title_en:("conduct disorder" OR "conduct disorders" OR "disruptive behavior" OR "disruptive behaviors" OR "disruptive behaviour" OR "disruptive behaviours" OR "oppositional behavior" OR "oppositional behaviors" OR "oppositional behaviour" OR "oppositional behaviours" OR "oppositional defiant disorder" OR "oppositional defiant disorders" OR bully OR bullying) OR advanced_abstract_en:("conduct disorder" OR "conduct disorders" OR "disruptive behavior" OR "disruptive behaviors" OR "disruptive behaviour" OR "disruptive behaviours" OR "oppositional behavior" OR "oppositional behaviors" OR "oppositional behaviour" OR "oppositional behaviours" OR "oppositional defiant disorder" OR "oppositional defiant disorders" OR bully OR bullying)) AND (advanced_title_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive) OR advanced_abstract_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR

SEARCH 2: 233 RECORDS
(advanced_title_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*) OR advanced_abstract_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*)) AND (advanced_title_en:("behavior disorder" OR "behavior disorders" OR "behaviour disorder" OR "behaviour disorders" OR "behavioral disorder" OR "behavioral disorders" OR "behavioural disorder" OR "behavioural disorders" OR "behavior problem" OR "behavior problems" OR "behaviour problem" OR "behaviour problems" OR "behavioral problem" OR "behavioral problems" OR "behavioural problem" OR "behavioural problems") OR advanced_abstract_en:("behavior disorder" OR "behavior disorders" OR "behaviour disorder" OR "behaviour disorders" OR "behavioral disorder" OR "behavioral disorders" OR "behavioural disorder" OR "behavioural disorders" OR "behavior problem" OR "behavior problems" OR

"behaviour problem" OR "behaviour problems" OR "behavioral problem" OR "behavioral problems" OR "behavioural problem" OR "behavioural problems")) AND (advanced_title_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive) OR advanced_abstract_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive)) [Filters: classification=systematic-review, protocol=no, min_year=2016, max_year=2021]

SEARCH 3: 153 RECORDS

(advanced_title_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*) OR advanced_abstract_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*)) AND (advanced_title_en:(delinquency OR "aggressive behavior" OR "aggressive behaviour" OR "child behavior disorders" OR "social behavior disorders" OR "conduct problem" OR "conduct problems" OR "antisocial behavior" OR "antisocial behaviors" OR "antisocial behaviour" OR "antisocial behaviours" OR "anti-social behavior" OR "anti-social behaviors" OR "anti-social behaviour" OR "anti-social behaviours" OR "violent behavior" OR "violent behaviour" OR "problem behavior" OR "problem behaviour") OR advanced_abstract_en:(delinquency OR "aggressive behavior" OR "aggressive behaviour" OR "child behavior disorders" OR "social behavior disorders" OR "conduct problem" OR "conduct problems" OR "antisocial behavior" OR "antisocial behaviors" OR "antisocial behaviour" OR "antisocial behaviours" OR "anti-social behavior" OR "anti-social behaviors" OR "anti-social behaviour" OR "anti-social behaviours" OR "violent behavior" OR "violent behaviour" OR "problem behavior" OR "problem behaviour")) AND (advanced_title_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive) OR advanced_abstract_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive)) [Filters: protocol=no, classification=systematic-review, min_year=2016, max_year=2021]

SEARCH 4: 442 RECORDS

(advanced_title_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*) OR advanced_abstract_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*)) AND (advanced_title_en:("dysfunctional behavior" OR "dysfunctional behaviour" OR "dysfunctional behaviors" OR "dysfunctional behaviours" OR "agonistic behavior" OR "agonistic behaviour" OR "maladaptive behavior" OR "maladaptive behaviour" OR "maladaptive behaviors" OR "maladaptive behaviours" OR "hyperactivity disorder" OR "hyperactivity disorders" OR "challenging behavior" OR "challenging behaviour" OR "challenging behaviors" OR "challenging behaviours") OR advanced_abstract_en:("dysfunctional behavior" OR "dysfunctional behaviour" OR "dysfunctional behaviors" OR "dysfunctional behaviours" OR "agonistic behavior" OR "agonistic behaviour" OR "maladaptive behavior" OR "maladaptive behaviour" OR "maladaptive behaviors" OR "maladaptive behaviours" OR "hyperactivity disorder" OR "hyperactivity disorders" OR "challenging behavior" OR "challenging behaviour" OR "challenging behaviors" OR "challenging behaviours")) AND (advanced_title_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive) OR advanced_abstract_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive)) [Filters: classification=systematic-review, protocol=no, min_year=2016, max_year=2021]

SEARCH 5: 230 RECORDS

(advanced_title_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*) OR advanced_abstract_en:(child OR children OR childhood OR young OR youngster OR youngsters OR schoolchild OR schoolchildren OR girl OR girls OR boy OR boys OR primary-age OR primary school* OR elementary school* OR prepubescen* OR pre-pubescen* OR prepuber* OR pre-puberty OR pre-adolescen* OR preadolescen* OR pre-school* OR preschool*)) AND (advanced_title_en:("conduct-dissocial behavior" OR "conduct-dissocial behaviour" OR "noncompliant behavior" OR "non-compliant behavior" OR "noncompliant behaviour" OR "non-compliant behaviour" OR "intermittent explosive" OR externali* OR internali* OR "offending behavior" OR "offending behaviour") OR advanced_abstract_en:("conduct-dissocial behavior" OR "conduct-dissocial behaviour" OR "noncompliant behavior" OR "non-compliant behavior" OR "noncompliant behaviour" OR "non-compliant behaviour" OR "intermittent explosive" OR externali* OR internali* OR "offending behavior" OR "offending behaviour")) AND (advanced_title_en:(intervention OR interventions OR prevent* OR treatment OR

treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive) OR advanced_abstract_en:(intervention OR interventions OR prevent* OR treatment OR treatments OR therapy OR therapies OR program OR programs OR programme OR programmes OR support OR training OR education OR educational OR Psychoeducation OR Psycho-education OR life skill* OR learning OR cognitive-behavioral strateg* OR cognitive-behavioural strateg* OR "cognitive behavior therapy" OR "cognitive behaviour therapy" OR "cognitive behavioral therapy" OR "cognitive behavioural therapy" OR CBT OR promote OR promotion OR promotive)) [Filters: classification=systematic-review, protocol=no, min_year=2016, max_year=2021]

Database: PubMed
Search date: 20 February 2022

Search	Query
#7	Search: #1 AND #2 AND #3 Filters: Meta-Analysis, Systematic Review, from 2016/1/1 - 2021/12/31
#4	Search: #1 AND #2 AND #3
#3	Search: intervention[tiab] OR interventions[tiab] OR prevent*[tiab] OR treatment[tiab] OR treatments[tiab] OR therapy[tiab] OR therapies[tiab] OR program[tiab] OR programs[tiab] OR programme[tiab] OR programmes[tiab] OR support[tiab] OR training[tiab] OR education[tiab] OR educational[tiab] OR Psychoeducation[tiab] OR Psycho-education[tiab] OR life skill*[tiab] OR learning[tiab] OR cognitive-behavioral strateg*[tiab] OR cognitive-behavioural strateg*[tiab] OR cognitive behavior therapy[tiab] OR cognitive behaviour therapy[tiab] OR cognitive behavioral therapy[mh] OR cognitive behavioral therapy[tiab] OR cognitive behavioural therapy[tiab] OR CBT[tiab] OR promote[tiab] OR promotion[tiab] OR promotive[tiab]
#2	Search: conduct disorder[mh] OR conduct disorder[tiab] OR conduct disorders[tiab] OR disruptive behavio*[tiab] OR oppositional behavio*[tiab] OR oppositional defiant disorder[tiab] OR oppositional defiant disorders[tiab] OR bullying[mh] OR bully[tiab] OR bullying[tiab] OR behavior disorder*[tiab] OR behaviour disorder*[tiab] OR behavioral disorder*[tiab] OR behavioural disorder*[tiab] OR behavior problem*[tiab] OR behaviour problem*[tiab] OR behavioral problem*[tiab] OR behavioural problem*[tiab] OR delinquency[tiab] OR aggression[mh] OR aggressive behavio*[tiab] OR child behavior disorders[mh] OR social behavior disorders[mh] OR conduct problem*[tiab] OR antisocial behavio*[tiab] OR anti-social behavio*[tiab] OR violent behavio*[tiab] OR problem behavior[mh] OR problem behavio*[tiab] OR dysfunctional behavio*[tiab] OR agonistic behavior[mh] OR maladaptive behavio*[tiab] OR hyperactivity disorder[tiab] OR hyperactivity disorders[tiab] OR challenging behavio*[tiab] OR conduct-dissocial behavio*[tiab] OR noncompliant behavio*[tiab] OR non-compliant behavio*[tiab] OR intermittent explosive behavio*[tiab] OR externaliz*[tiab] OR externalis*[tiab] OR internaliz*[tiab] OR internalis*[tiab] OR offending behavio*[tiab] OR "attention deficit and disruptive behavior disorders"[mh] OR attention deficit disorders[tiab] OR mental health[mh] OR mental health[tiab] OR wellbeing[tiab] OR well being[tiab] OR depression[mh] OR depress*[tiab] OR anxiety[mh] OR anxiety[tiab] OR anxious*[tiab] OR mood disorders[mh:noexp] OR mood disorder*[tiab] OR self-harm[tiab] OR self-injurious behavior[mh] OR self-injur*[tiab] OR self destructive behavior*[tiab] OR self destructive behaviour*[tiab] OR psychological distress[mh] OR psychological distress[tiab] OR emotional stress[tiab] OR emotional distress[tiab]

#1	Search: child[mh] OR child[tiab] OR children[tiab] OR childhood[tiab] OR young[tiab] OR youngster[tiab] OR youngsters[tiab] OR schoolchild[tiab] OR schoolchildren[tiab] OR girl[tiab] OR girls[tiab] OR boy[tiab] OR boys[tiab] OR primary-age[tiab] OR primary school*[tiab] OR elementary school*[tiab] OR prepubescen*[tiab] OR pre-pubescen*[tiab] OR prepuber*[tiab] OR pre-puberty[tiab] OR pre-adolescen*[tiab] OR preadolescen*[tiab] OR pre-school*[tiab] OR preschool*[tiab]

Database: PsycInfo
Search date: 23 February 2022
exp child/ OR child.ti,ab. OR children.ti,ab. OR childhood.ti,ab. OR young.ti,ab. OR youngster.ti,ab. OR youngsters.ti,ab. OR schoolchild.ti,ab. OR schoolchildren.ti,ab. OR girl.ti,ab. OR girls.ti,ab. OR boy.ti,ab. OR boys.ti,ab. OR primary-age.ti,ab. OR "primary school*".ti,ab. OR "elementary school*".ti,ab. OR prepubescen*.ti,ab. OR pre-pubescen*.ti,ab. OR prepuber*.ti,ab. OR pre-puberty.ti,ab. OR pre-adolescen*.ti,ab. OR preadolescen*.ti,ab. OR pre-school*.ti,ab. OR preschool*.ti,ab. exp "conduct disorder"/ OR "conduct disorder".ti,ab. OR "conduct disorders".ti,ab. OR "disruptive behavio*".ti,ab. OR "oppositional behavio*".ti,ab. OR "oppositional defiant disorder".ti,ab. OR "oppositional defiant disorders".ti,ab. OR exp bullying/ OR bully.ti,ab. OR bullying.ti,ab. OR "behavior disorder*".ti,ab. OR "behaviour disorder*".ti,ab. OR "behavioral disorder*".ti,ab. OR "behavioural disorder*".ti,ab. OR "behavior problem*".ti,ab. OR "behaviour problem*".ti,ab. OR "behavioral problem*".ti,ab. OR "behavioural problem*".ti,ab. OR delinquency.ti,ab. OR exp aggression/ OR "aggressive behavio*".ti,ab. OR exp "child behavior disorders"/ OR exp "social behavior disorders"/ OR "conduct problem*".ti,ab. OR "antisocial behavio*".ti,ab. OR "anti-social behavio*".ti,ab. OR "violent behavio*".ti,ab. OR exp "problem behavior"/ OR "problem behavio*".ti,ab. OR "dysfunctional behavio*".ti,ab. OR exp "agonistic behavior"/ OR "maladaptive behavio*".ti,ab. OR "hyperactivity disorder".ti,ab. OR "hyperactivity disorders".ti,ab. OR "challenging behavio*".ti,ab. OR "conduct-dissocial behavio*".ti,ab. OR "noncompliant behavio*".ti,ab. OR "non-compliant behavio*".ti,ab. OR "intermittent explosive behavio*".ti,ab. OR externaliz*.ti,ab. OR externalis*.ti,ab. OR internaliz*.ti,ab. OR internalis*.ti,ab. OR "offending behavio*".ti,ab. OR exp "attention deficit and disruptive behavior disorders"/ OR "attention deficit disorders".ti,ab. OR exp "mental health"/ OR "mental health".ti,ab. OR wellbeing.ti,ab. OR "well being".ti,ab. OR exp depression/ OR depress*.ti,ab. OR exp anxiety/ OR anxiety.ti,ab. OR anxious*.ti,ab. OR "mood disorders"/ OR "mood disorder*".ti,ab. OR self-harm.ti,ab. OR exp "self-injurious behavior"/ OR self-injur*.ti,ab. OR "self destructive behavior*".ti,ab. OR "self destructive behaviour*".ti,ab. OR exp "psychological distress"/ OR "psychological distress".ti,ab. OR "emotional stress".ti,ab. OR "emotional distress".ti,ab. intervention.ti,ab. OR interventions.ti,ab. OR prevent*.ti,ab. OR treatment.ti,ab. OR treatments.ti,ab. OR therapy.ti,ab. OR therapies.ti,ab. OR program.ti,ab. OR programs.ti,ab. OR programme.ti,ab. OR programmes.ti,ab. OR support.ti,ab. OR training.ti,ab. OR education.ti,ab. OR educational.ti,ab. OR Psychoeducation.ti,ab. OR Psycho-education.ti,ab. OR "life skill*".ti,ab. OR learning.ti,ab. OR "cognitive-behavioral strateg*".ti,ab. OR "cognitive-behavioural strateg*".ti,ab. OR "cognitive behavior therapy".ti,ab. OR "cognitive behaviour therapy".ti,ab. OR exp "cognitive behavioral therapy"/ OR "cognitive behavioral therapy".ti,ab. OR "cognitive behavioural therapy".ti,ab. OR CBT.ti,ab. OR promote.ti,ab. OR promotion.ti,ab. OR promotive.ti,ab.

Database: Scopus

Search date: 22 February 2022

Search	Query
#6	(INDEXTERMS(child) OR TITLE-ABS(child) OR TITLE-ABS(children) OR TITLE-ABS(childhood) OR TITLE-ABS(young) OR TITLE-ABS(youngster) OR TITLE-ABS(youngsters) OR TITLE-ABS(schoolchild) OR TITLE-ABS(schoolchildren) OR TITLE-ABS(girl) OR TITLE-ABS(girls) OR TITLE-ABS(boy) OR TITLE-ABS(boys) OR TITLE-ABS(primary-age) OR TITLE-ABS("primary school*") OR TITLE-ABS("elementary school*") OR TITLE-ABS(prepubescen*) OR TITLE-ABS(pre-pubescen*) OR TITLE-ABS(prepuber*) OR TITLE-ABS(pre-puberty) OR TITLE-ABS(pre-adolescen*) OR TITLE-ABS(preadolescen*) OR TITLE-ABS(pre-school*) OR TITLE-ABS(preschool*)) AND (INDEXTERMS("conduct disorder") OR TITLE-ABS("conduct disorder") OR TITLE-ABS("conduct disorders") OR TITLE-ABS("disruptive behavio*") OR TITLE-ABS("oppositional behavio*") OR TITLE-ABS("oppositional defiant disorder") OR TITLE-ABS("oppositional defiant disorders") OR INDEXTERMS(bullying) OR TITLE-ABS(bully) OR TITLE-ABS(bullying) OR TITLE-ABS("behavior disorder*") OR TITLE-ABS("behaviour disorder*") OR TITLE-ABS("behavioral disorder*") OR TITLE-ABS("behavioural disorder*") OR TITLE-ABS("behavior problem*") OR TITLE-ABS("behaviour problem*") OR TITLE-ABS("behavioral problem*") OR TITLE-ABS("behavioural problem*") OR TITLE-ABS(delinquency) OR INDEXTERMS(aggression) OR TITLE-ABS("aggressive behavio*") OR INDEXTERMS("child behavior disorders") OR INDEXTERMS("social behavior disorders") OR TITLE-ABS("conduct problem*") OR TITLE-ABS("antisocial behavio*") OR TITLE-ABS("anti-social behavio*") OR TITLE-ABS("violent behavio*") OR INDEXTERMS("problem behavior") OR TITLE-ABS("problem behavio*") OR TITLE-ABS("dysfunctional behavio*") OR INDEXTERMS("agonistic behavior") OR TITLE-ABS("maladaptive behavio*") OR TITLE-ABS("hyperactivity disorder") OR TITLE-ABS("hyperactivity disorders") OR TITLE-ABS("challenging behavio*") OR TITLE-ABS("conduct-dissocial behavio*") OR TITLE-ABS("noncompliant behavio*") OR TITLE-ABS("non-compliant behavio*") OR TITLE-ABS("intermittent explosive behavio*") OR TITLE-ABS(externaliz*) OR TITLE-ABS(externalis*) OR TITLE-ABS(internaliz*) OR TITLE-ABS(internalis*) OR TITLE-ABS("offending behavio*") OR INDEXTERMS("attention deficit and disruptive behavior disorders") OR TITLE-ABS("attention deficit disorders") OR INDEXTERMS("mental health") OR TITLE-ABS("mental health") OR TITLE-ABS(wellbeing) OR TITLE-ABS("well being") OR INDEXTERMS(depression) OR TITLE-ABS(depress*) OR INDEXTERMS(anxiety) OR TITLE-ABS(anxiety) OR TITLE-ABS(anxious*) OR INDEXTERMS("mood disorders") OR TITLE-ABS("mood disorder*") OR TITLE-ABS(self-harm) OR INDEXTERMS("self-injurious behavior") OR TITLE-ABS(self-injur*) OR TITLE-ABS("self destructive behavior*") OR TITLE-ABS("self destructive behaviour*") OR INDEXTERMS("psychological distress") OR TITLE-ABS("psychological distress") OR TITLE-ABS("emotional stress") OR TITLE-ABS("emotional distress")) AND (TITLE-ABS(intervention) OR TITLE-ABS(interventions) OR TITLE-ABS(prevent*) OR TITLE-ABS(treatment) OR TITLE-ABS(treatments) OR TITLE-ABS(therapy) OR TITLE-ABS(therapies) OR TITLE-ABS(program) OR TITLE-ABS(programs) OR TITLE-ABS(programme) OR TITLE-ABS(programmes) OR TITLE-ABS(support) OR TITLE-ABS(training) OR TITLE-ABS(education) OR TITLE-ABS(educational) OR TITLE-ABS(Psychoeducation) OR TITLE-ABS(Psycho-education) OR TITLE-ABS("life skill*") OR TITLE-ABS(learning) OR TITLE-ABS("cognitive-behavioral strateg*") OR TITLE-ABS("cognitive-behavioural strateg*") OR TITLE-ABS("cognitive behavior therapy") OR TITLE-ABS("cognitive behaviour therapy") OR INDEXTERMS("cognitive behavioral therapy") OR TITLE-ABS("cognitive behavioral therapy") OR TITLE-ABS("cognitive behavioural therapy") OR TITLE-ABS(CBT) OR TITLE-ABS(promote) OR TITLE-ABS(promotion) OR TITLE-ABS(promotive)) AND (TITLE-ABS ("systematic review") OR TITLE-ABS ("systematic literature review") OR TITLE-ABS ("systematic scoping review") OR TITLE-ABS ("systematic narrative review") OR TITLE-ABS ("systematic qualitative review") OR TITLE-ABS ("systematic evidence review") OR TITLE-ABS ("systematic quantitative review") OR TITLE-ABS ("systematic meta-review") OR TITLE-ABS ("systematic critical review") OR TITLE-ABS ("systematic mixed studies review") OR TITLE-ABS ("systematic mapping review") OR TITLE-ABS ("systematic cochrane review") OR TITLE-ABS ("systematic integrative review") OR "systematic search" AND TITLE (review) OR TITLE-ABS (metaanal*) OR TITLE-ABS ("meta anal*")) AND (LIMIT-TO (PUBYEAR,2021) OR LIMIT-TO (PUBYEAR,2020) OR LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR,2018) OR LIMIT-TO (PUBYEAR,2017) OR LIMIT-TO (PUBYEAR,2016))

#5	#1 AND #2 AND #3 AND #4
#4	TITLE-ABS ("systematic review") OR TITLE-ABS ("systematic literature review") OR TITLE-ABS ("systematic scoping review") OR TITLE-ABS ("systematic narrative review") OR TITLE-ABS ("systematic qualitative review") OR TITLE-ABS ("systematic evidence review") OR TITLE-ABS ("systematic quantitative review") OR TITLE-ABS ("systematic meta-review") OR TITLE-ABS ("systematic critical review") OR TITLE-ABS ("systematic mixed studies review") OR TITLE-ABS ("systematic mapping review") OR TITLE-ABS ("systematic cochrane review") OR TITLE-ABS ("systematic integrative review") OR "systematic search" AND TITLE (review) OR TITLE-ABS (metaanal*) OR TITLE-ABS ("meta anal*")
#3	TITLE-ABS (intervention) OR TITLE-ABS (interventions) OR TITLE-ABS (prevent*) OR TITLE-ABS (treatment) OR TITLE-ABS (treatments) OR TITLE-ABS (therapy) OR TITLE-ABS (therapies) OR TITLE-ABS (program) OR TITLE-ABS (programs) OR TITLE-ABS (programme) OR TITLE-ABS (programmes) OR TITLE-ABS (support) OR TITLE-ABS (training) OR TITLE-ABS (education) OR TITLE-ABS (educational) OR TITLE-ABS (psychoeducation) OR TITLE-ABS (psycho-education) OR TITLE-ABS ("life skill*") OR TITLE-ABS (learning) OR TITLE-ABS ("cognitive-behavioral strateg*") OR TITLE-ABS ("cognitive-behavioural strateg*") OR TITLE-ABS ("cognitive behavior therapy") OR TITLE-ABS ("cognitive behaviour therapy") OR INDEXTERMS ("cognitive behavioral therapy") OR TITLE-ABS ("cognitive behavioral therapy") OR TITLE-ABS ("cognitive behavioural therapy") OR TITLE-ABS (cbt) OR TITLE-ABS (promote) OR TITLE-ABS (promotion) OR TITLE-ABS (promotive)
#2	INDEXTERMS("conduct disorder") OR TITLE-ABS("conduct disorder") OR TITLE-ABS("conduct disorders") OR TITLE-ABS("disruptive behavio*") OR TITLE-ABS("oppositional behavio*") OR TITLE-ABS("oppositional defiant disorder") OR TITLE-ABS("oppositional defiant disorders") OR INDEXTERMS(bullying) OR TITLE-ABS(bully) OR TITLE-ABS(bullying) OR TITLE-ABS("behavior disorder*") OR TITLE-ABS("behaviour disorder*") OR TITLE-ABS("behavioral disorder*") OR TITLE-ABS("behavioural disorder*") OR TITLE-ABS("behavior problem*") OR TITLE-ABS("behaviour problem*") OR TITLE-ABS("behavioral problem*") OR TITLE-ABS("behavioural problem*") OR TITLE-ABS(delinquency) OR INDEXTERMS(aggression) OR TITLE-ABS("aggressive behavio*") OR INDEXTERMS("child behavior disorders") OR INDEXTERMS("social behavior disorders") OR TITLE-ABS("conduct problem*") OR TITLE-ABS("antisocial behavio*") OR TITLE-ABS("anti-social behavio*") OR TITLE-ABS("violent behavio*") OR INDEXTERMS("problem behavior") OR TITLE-ABS("problem behavio*") OR TITLE-ABS("dysfunctional behavio*") OR INDEXTERMS("agonistic behavior") OR TITLE-ABS("maladaptive behavio*") OR TITLE-ABS("hyperactivity disorder") OR TITLE-ABS("hyperactivity disorders") OR TITLE-ABS("challenging behavio*") OR TITLE-ABS("conduct-dissocial behavio*") OR TITLE-ABS("noncompliant behavio*") OR TITLE-ABS("non-compliant behavio*") OR TITLE-ABS("intermittent explosive behavio*") OR TITLE-ABS(externaliz*) OR TITLE-ABS(externalis*) OR TITLE-ABS(internaliz*) OR TITLE-ABS(internalis*) OR TITLE-ABS("offending behavio*") OR INDEXTERMS("attention deficit and disruptive behavior disorders") OR TITLE-ABS("attention deficit disorders") OR INDEXTERMS("mental health") OR TITLE-ABS("mental health") OR TITLE-ABS(wellbeing) OR TITLE-ABS("well being") OR INDEXTERMS(depression) OR TITLE-ABS(depress*) OR INDEXTERMS(anxiety) OR TITLE-ABS(anxiety) OR TITLE-ABS(anxious*) OR INDEXTERMS("mood disorders") OR TITLE-ABS("mood disorder*") OR TITLE-ABS(self-harm) OR INDEXTERMS("self-injurious behavior") OR TITLE-ABS(self-injur*) OR TITLE-ABS("self destructive behavior*") OR TITLE-ABS("self destructive behaviour*") OR INDEXTERMS("psychological distress") OR TITLE-ABS("psychological distress") OR TITLE-ABS("emotional stress") OR TITLE-ABS("emotional distress")
#1	INDEXTERMS (child) OR TITLE-ABS (child) OR TITLE-ABS (children) OR TITLE-ABS (childhood) OR TITLE-ABS (young) OR TITLE-ABS (youngster) OR TITLE-ABS (youngsters) OR TITLE-ABS (schoolchild) OR TITLE-ABS (schoolchildren) OR TITLE-ABS (girl) OR TITLE-ABS (girls) OR TITLE-ABS (boy) OR TITLE-ABS (boys) OR TITLE-ABS (primary-age) OR TITLE-ABS ("primary school*") OR TITLE-ABS ("elementary school*") OR TITLE-ABS (prepubescen*) OR TITLE-ABS (pre-pubescen*) OR TITLE-ABS (prepuber*) OR TITLE-ABS (pre-puberty) OR TITLE-ABS (pre-adolescen*) OR TITLE-ABS (preadolescen*) OR TITLE-ABS (pre-school*) OR TITLE-ABS (preschool*)