

Promoting psychological well-being in children and adolescents

An HTA Report

October 2022. The full report in Swedish (www.sbu/350)

Main message

There are different programs, often universally delivered in pre-school and school environments, that aim to promote psychological well-being of children and adolescents. The focus of these programs is often to improve the students' abilities in several skills that in turn can promote psychological well-being. Most students and teachers who participate in these programs have positive experiences.

Conclusions

Socio-emotional learning (SEL) programs compared to usual practice

- SEL-programs as a group have a positive effect on children's social and emotional competence (all CASEL skills, see table 1) as well as on their resilience, general well-being, quality of life and coping strategies. It is not possible to assess whether the effects persist over time, since there are too few studies investigating long term effects.
- Students appreciated the SEL-programs and teachers felt that the programs provided them with new tools to promote psychological well-being among students.

Mindfulness (MBI) compared to usual practice

- MBI-based programs improve quality of life and resilience. After six months, the effect is still significant for girls.
- Students experienced that MBI led to improved insight and regulation of emotions, as well as improved coping with difficult situations.

Yoga

- Structured programs based on yoga may lead to improved self-control.
- The students experience that yoga provided increased psychological well-being, better skill to manage their emotions and deeper relationships with others.

PAX/Good Behavior Game (GBG)

- PAX/GBG may provide a marginal improvement in relationship skills. Evidence is insufficient to assess whether PAX/GBG can promote other aspects of psychological well-being.

Parenting support program

- Parenting support during the child's first three years provides children with improved social and emotional competence. The data is insufficient to assess the effects of the programs when the children are older.

Aim

The purpose of this systematic review was to evaluate the scientific support for programs promoting psychological well-being in children and adolescents. The report is part of a Swedish government commission on psychological health among children and adolescents (S2020/01043/FS). We investigated both the effects of the programs or groups of programs on psychological well-being and the participants' experiences of the programs. The report also includes aspects regarding implementation and long-term effects, as well as an analysis of health economic aspects and an ethical discussion of the results.

Background

Psychological health problems among children and adolescents are increasing globally. Most often the focus of interventions is to prevent psychological illness, but to strengthen psychological well-being is equally important and may help prevent future psychosocial problems. Promoting psychological well-being is about strengthening health factors, such as resilience and coping skills. One way of doing this is by offering universal intervention programs for children and adolescents. The programs can either have a standardized, manual-based content, or be a framework from which the organizations that implement the program can choose components to include. Promotional efforts arguably need to be given early in life, and it is therefore important to evaluate programs that can be given already from the first years of life and onwards. Possible arenas for the implementation vary with the children's age and can be, for example, childcare centres, preschool, school, and school health care.

Method

We conducted a systematic review and reported it in accordance with the PRISMA statement. The protocol is registered in Prospero (CRD42021291503). The certainty of evidence was assessed with GRADE/CERQual.

Inclusion criteria

Population

Children and adolescents 0-18 years of age, or guardians, school staff, etc. involved in programs with the aim of improving the health of children and adolescents up to 18 years of age.

Intervention

Universal interventions, both standardized programs and framework programs that aim to promote psychological health among children and adolescents.

Limitation: Included were only programs that are already part of practice in Sweden, or proposed as possibly important by Swedish authorities and experts in the field, or identified as a program with health-promoting purpose within earlier SBU projects of prevention of psychological illness, or identified by search for evidence-based programs in, for example, Blueprint and EUnetHTA's database.

Control

No intervention to promote psychological well-being ("usual teaching", "usual handling"), other programs.

Outcome/Evaluations

Effect studies

Psychological well-being, Quality of Life (QoL), Sense of coherence, Self-awareness (CASEL 1), Self-management (CASEL 2), Social awareness (CASEL 3), Relationship skills

(CASEL 4), Responsible decision making (CASEL 5), CASEL composite score, Resiliens (proxy: self-efficacy), Coping strategies for wellbeing/skills/psychological health literacy, Self-esteem.

Experience studies

Participants' descriptions of whether they experienced any changes in their own or others' psychological well-being or skills that support psychological well-being. Furthermore, experiences of the program's design and content. We collected data on the experiences of children's psychological well-being, but also in any skills that teachers, staff, and parents acquired that, in turn, could affect children's well-being. Regarding usability, we focused on perceptions of program format and content.

Study design

Effect studies

Randomized and non-randomized studies with comparison group, or interrupted time-series with at least three measurement points before and after the intervention (a total of at least 6 measurement occasions).

Experience studies

Studies with qualitative or quantitative methodology, or mixed methods.

Language and journals: English, Swedish, Norwegian, or Danish. Peer reviewed articles.

Databases searched: Embase, Scopus and the EBSCO platform, which include the databases Academic Search Premier, CINAHL, ERIC; MEDLINE, PsycINFO, Psychology and Behavioral Sciences Collection/SocINDEX, Education source. Also, Campbell Library, Cochrane Library, Epistemonikos, Evidence search (NICE), HTA-database, KSR Evidence and Prospero was searched. The search strategy was developed by an information specialist. The search for literature was limited to identified programs (see "Intervention" above). The final searches were performed the 28th of April 2021 without restrictions for publication period.

Client involvement: No

Results

We included a total of 96 articles on the effects of programs to promote psychological well-being and 17 articles on experiences of such programs. All effect studies had a control group and 85 were RCTs. With a few exceptions, the programs were compared with traditional school education. We also included 4 systematic reviews that evaluated the effects of MBI, Yoga, and Parenting Support (See figure 1).

We conducted analyses on entire program groups (SEL, MBI, Yoga, PAX/GBG, Parenting Support), and two individual programs (PATHS, Second Step). Most of the program groups investigated promoted the psychological well-being of children and adolescents as measured in one or more of the outcomes, immediately after the programs have ended. There was not enough data to assess whether these effects remain over time. An overview of the report's results of the effects and experiences of the programs are shown in tables 1a and 1b.

Figure 1 Flowchart.

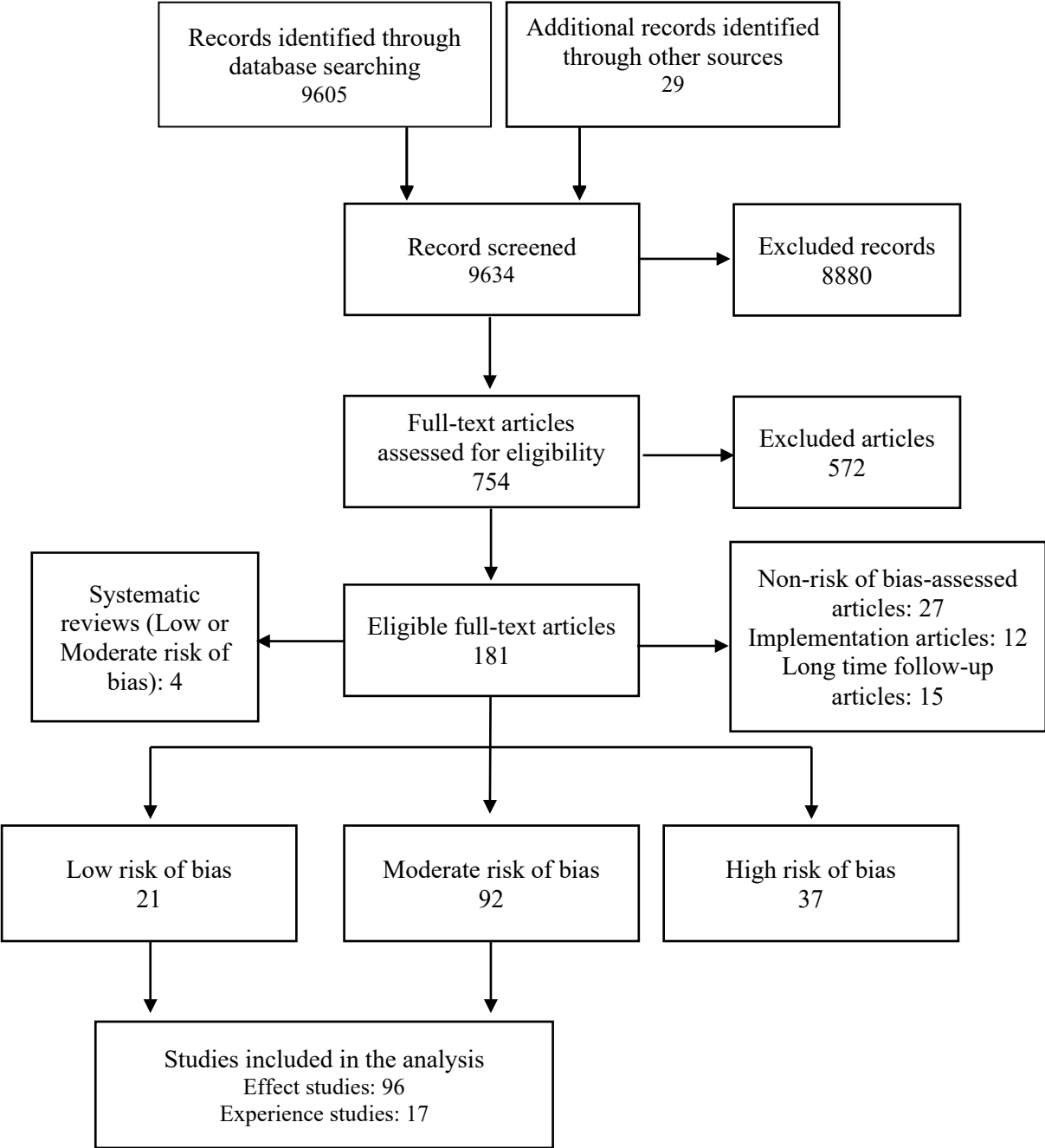


Table 1 Overview of the results of **(a)** effects on psychological well-being, and **(b)** experiences of programs for promoting psychological well-being. The tables show the reliability of the results. Very low reliability (+000); Low reliability (++00); Moderate reliability (+++0); High reliability (++++). Green colour: positive effect of the program; Orange colour: Unclear effect of the program; White colour: No data; X: Information in report but no effect results.

a) Overview of the results of effects on psychological well-being, and the reliability that the program group or program had a positive effect on the outcome.

Outcome - Effects of programs		SEL			MBI	Yoga	PAX/GBG	Parental support
Effects on psychological well-being		SEL (all)	PATHS	Second Step				
Well-being		(++00)	(+000)		(+000)	(+000)		
Quality of Life		(++00)	(+000)		(+++0)			
Sense of coherence		(+000)	(+000)					
Effects on psychological well-being skills								
Social-emotional competence (CASEL)	Overall	X	X					(+++0)
	Self-awareness	(++00)						
	Self-management	(++00)	(+000)		(++00)	(++00)	(+000)	
	Social awareness	(++00)	(++00)	(+000)			(+000)	
	Relationship skills	(+++0)	(+000)		(+000)		(++00)	
	Responsible decision-making	(++00)	(+000)	(+000)				
	CASEL Composite	(+++0)	(+000)	(+000)				
Resilience		(+++0)			(+++0)	(+000)		
Coping strategies		(++00)				(+000)		
Self-confidence		(+000)				(+000)		
Other								
Long time follow-up		X					X	
Cost-effectiveness and resource utilization compilation		X	X		X		X	X
Implementation factors ¹		X						

MBI=Mindfulness based intervention; **PAX/GBG**=PAX Good Behaviour Game; **SEL**=Social emotional learning. ¹ Only descriptive data

b) Overview of the results for experiences of programs for promoting psychological well-being, and the reliskill of the findings' representation of the phenomenon.

Outcome – experiences of programs	SEL	MBI	Yoga	PAX/GBG	Parental support
Experiences of the students					
The programs provided improved self-esteem and confidence	(+++0)				
The program promoted close relationships, social interaction, and conflict management skills	(+++0)		(+000)		
The school environment improved	(++00)				
The lessons were fun and rewarding, but some found them boring and messy.	(+++0)		(++00)		
There were students who experienced that the program affected the personal integrity	(+++0)				
The students experienced improved insight and regulation of their emotions		(++00)	(+++0)		
The students felt that they became better at handling difficult situations		(++00)			
Most students experienced increased psychological well-being, but some did not appreciate participating in yoga			(+++0)		
The students experienced that they gained deeper relationships through yoga			(+++0)		
Experiences of the teachers					
The programs made students aware of their emotions and gave them tools to manage their emotional lives and reactions	(+++0)				
The programs taught the children to manage conflicts and strengthen their relationships	(+++0)				
Teaching about SEL is important, but the program could become tedious and needs to be adapted to the individual context	(+++0)				
The programs gave the teachers new tools to help students feel better	(+++0)			(+000)	
The programs led to improved collaboration and an improved school environment				(+000)	
The programs led to improved student self-regulation				(+000)	

MBI=Mindfulness based intervention; **PAX/GBG**=PAX Good Behaviour Game; **SEL**=Social emotional learning

Health Economic Assessment

For the health economic analysis, the scientific basis for assessing the cost-effectiveness of the interventions has been insufficient. Two studies of two programs were included, but for

both studies the calculations of cost-effectiveness were based on uncertain data. Furthermore, the studies did not consider long-term effects and costs of the interventions.

Ethics

A program at universal level is given to everyone regardless of their circumstances, which decreases the risk of stigmatizing certain individuals. It is important that the programs are adaptable and that the students are allowed to have influence over the implementation. It is also important to protect vulnerable student groups and avoid that students are being pressured to participate in something they are not comfortable with.

Since schools have limited resources, it is important to analyse the risk of displacement effects before a program to promote psychological well-being is introduced. Also, some programs may require permission from copyright holders. From an equality and administrative perspective, this can be problematic since municipalities may have different economic situations.

Discussion

For SEL programs, positive effects on psychological well-being are seen across all age groups (up to age 18). We have not evaluated the extent to which the effects are influenced by factors such as gender, socioeconomics or foreign-born parents. The exception is MBI, which has been shown to have a longer lasting effect for girls. We have not found any reports of negative effects of the programs. In fact, qualitative evidence syntheses show that both children and teachers have overall positive experiences of SEL programs.

The included studies were conducted in many different countries and there may be differences in school environment, curricula and school organization that affect the implementation of the programs and the results of the studies.

The results presented in this report are average effects at the group level, as well as qualitative syntheses of experiences. For specific subgroups and for individuals, the effect and experience may be different.

The few long-term follow-ups that exist usually focus on outcomes other than the promotion of psychological well-being, such as preventing psychological illness, risk behaviours and criminality.

Conflict of Interest

In accordance with SBU's requirements, the experts and scientific reviewers participating in this project have submitted statements about conflicts of interest. These documents are available at SBU's secretariat. SBU has determined that the conditions described in the submissions are compatible with SBU's requirements for objectivity and impartiality.

Appendices

- Search strategies
(<https://www.sbu.se/contentassets/9f17e37106a942ce8da07c26ee0fdc4c/bilaga-1-dokumentation-av-sokstrategier.pdf>)
- Excluded references
(<https://www.sbu.se/contentassets/9f17e37106a942ce8da07c26ee0fdc4c/bilaga-3-exkluderade-studier.pdf>)

- Studies not included in analysis due to Risk of Bias
(<https://www.sbu.se/contentassets/9f17e37106a942ce8da07c26ee0fdc4c/bilaga-5-studier-med-hog-risk-for-snedvridning.pdf>)
- Characteristics of included studies
(<https://www.sbu.se/contentassets/9f17e37106a942ce8da07c26ee0fdc4c/bilaga-4-inkluderade-studier.pdf>)
- References included in analysis
(https://www.sbu.se/contentassets/bb7d9f309ae14f2b987baed1422ce3b6/ris-file_studies-included-in-the-analysis.txt)