

## INPLASY

## Group-Based Social Skills Training for Children and Adolescents Aged 6–18 in Nonclinical Populations

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**ADMINISTRATIVE INFORMATION****Support** - Project funded by the SWPS University Research Development Fund.**Review Stage at time of this submission** - The review has not yet started.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202590108**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 September 2025 and was last updated on 26 September 2025.**INTRODUCTION**

**Review question / Objective** This research aims to conduct a systematic review of the scientific literature on Group-Based Social Skills Training (SST) as a tool for supporting emotional, communicative, and social development, as well as for preventing mental health disorders among school-aged children and adolescents (6–18 years old) without a specific diagnosis.

The following research questions were formulated:  
What theoretical foundations underpin SST programs?

What are the typical components and structure of such programs?

What are the formal characteristics of SST programs (e.g., duration, facilitators, setting)?

Which participant groups are these interventions designed for (e.g., developmental or behavioral profiles)?

How is the effectiveness of SST evaluated, and what are the outcomes?

The project aims to integrate dispersed empirical knowledge and formulate practical recommendations for representatives of the environments in which children and adolescents live, as well as for professionals who provide support and assistance to young people.

**Rationale** Social Skills Training (SST) is gaining increasing attention in developmental and educational psychology. However, the literature highlights inconsistencies in the definitions, structures, and evaluation methods of SST programs (Bellini et al., 2007; Kavale & Mostert, 2004; Wojnarska, 2019). There is also conceptual ambiguity in distinguishing among social “skills,” “competencies,” and “abilities” (Kupiec, 2013; McFall, 1982).

Social and emotional skills—such as emotional recognition and regulation, effective communication, and active listening—are essential

for interpersonal functioning and overall psychological well-being (Knopp, 2005; Wosik-Kawala, 2013).

Researchers contend that effective Social Skills Training (SST) programs should be grounded in developmental psychology theories, social learning theory (Bandura, 1977), and empirically validated approaches (Campbell, 2008; Węglarz & Bentkowska, 2024). Evidence-based practices (EBPs) are particularly valuable as they minimize the negative consequences of social and communication deficits (Gresham, 2016; Reichow & Volkmar, 2010; Whalon et al., 2015).

Evaluating the effectiveness of intervention and prevention programs is crucial in the context of intervention validity—defined as the extent to which assessment outcomes can guide intervention selection and support evaluation. Interventions with high validity generate measurable, beneficial outcomes aligned with participants' needs (Gresham, 2016).

EBPs are designed to foster the development and application of social skills, reinforce prosocial behaviors, and strengthen social competence. Their effectiveness increases when they are tailored to specific participant needs—for example, when targeting children who possess certain social skills but do not apply them consistently in real-life contexts (McIntosh et al., 2013).

An important consideration in designing interventions is the selection of tools with documented ecological validity—that is, interventions that have demonstrated effectiveness in natural environments such as schools or homes (Reichow & Volkmar, 2010).

Deficits in social skills can have profound and lasting effects on academic performance, school behavior, emotional well-being, social relationships (including friendships and family interactions), and life outcomes in adulthood (Gresham, 2016). Preventive and therapeutic SST interventions are therefore crucial for mitigating these adverse consequences (Domitrovich et al., 2017).

Regular evaluation ensures that resources—time, money, and personnel—are directed toward programs that are truly effective and yield meaningful results.

A systematic review of SST interventions will allow for a comprehensive summary of their effectiveness and an exploration of the contextual factors influencing their implementation in various environments (e.g., schools). Additionally, such a review will help identify gaps in current research and inform future directions for optimizing interventions that support the social development of children and adolescents.

Reliable, evidence-based knowledge is crucial for implementing interventions that benefit not only

individual participants but also broader societal well-being (Durlak et al., 2011).

### **Condition being studied** Current State of Knowledge on the Effectiveness of Social Skills Training (SST) for Children and Adolescents

The effectiveness of Social Skills Training (SST) for children and adolescents has been relatively well documented in clinical populations, particularly among youth with mental health conditions such as Autism Spectrum Disorder (ASD) and Attention-Deficit/Hyperactivity Disorder (ADHD). These studies suggest that SST yields measurable benefits for these groups, though they often require a more individualized approach and the involvement of significant adults (Allen, Boyle, Lauchlan, & Craig, 2020; Jijina, & Sinha, 2016; Liu, 2023; Mikami, Smit, & Khalis, 2017). However, there is still a significant lack of robust scientific evidence regarding the effectiveness of SST among typically developing children and adolescents.

Some empirical studies have demonstrated moderate effectiveness of SST in improving core social skills such as communication, emotion recognition, conflict resolution, and emotional regulation in both clinical and non-clinical youth populations (Gresham et al., 2001; de Mooij et al., 2020).

Meta-analyses indicate that the most effective SST programs tend to include specific components such as social behavior modeling (e.g., by a facilitator or through video demonstrations), skills practice (e.g., role-playing), immediate feedback, homework or transfer tasks, peer-group interaction, and active involvement of parents or teachers (de Mooij et al., 2020; Beelmann & Lösel, 2020).

The effectiveness of SST is influenced by multiple variables. Age appears to be a significant moderator, with children aged 6–12 showing greater gains than adolescents (Reichow et al., 2012). Programs implemented in school settings tend to yield better generalization and transfer of learned skills (Pollak et al., 2020), and interventions comprising at least 10 sessions are more effective than shorter ones. Furthermore, programs delivered by trained professionals—such as psychologists or therapists with relevant clinical experience—are associated with stronger outcomes.

In universal school-based interventions, SST has been shown to improve peer relationships and overall classroom climate (Barrett, 2010–2023; FRIENDS program). These findings also suggest a promising role for SST in the prevention of emotional disorders and behavioral problems (Beelmann & Lösel, 2020).

However, relatively few studies have examined the long-term effects of SST. The available studies suggest that program effects tend to diminish within a few months post-intervention unless supplemented with additional strategies such as follow-up sessions, coaching, or environmental reinforcement. Sustained effects are more likely when programs include reinforcement and repetition components, are supported by teachers or parents, and are embedded into everyday life contexts (Beelmann & Lösel, 2020; Hart et al., 2024).

## METHODS

**Search strategy** Following databases will be searched: PsychInfo; Psycharticles; Pubmed; ERIC; Scopus, and Web of Science. Following keywords will be used:

1. Population  
child

adolescent

youth

teenager\*  
students  
pupils

school-aged

young people

nonclinical population

Typical development

2. Intervention

social skills training

social skills intervention

socio-emotional learning

emotional competence

social competence

interpersonal skills

communication skills training

SEL (Social and Emotional Learning)

group-based intervention

skills-based training

soft skills development  
social communication  
social behavior  
prevention  
preventive social skills training  
preventive intervention  
behavioral prevention  
SSGT (Social Skills Group Training)

3. Outcomes

emotion regulation

emotional development

social functioning

prosocial behavior

self-regulation

communication skills

empathy

behavioral adjustment

psychosocial outcomes

psychological well-being

4. Study design/publication type  
randomized controlled trial

quasi-experimental

intervention study

empirical study

program evaluation

pre-post study

outcome evaluation

effectiveness

Search strings to each resource are below:  
PsycINFO, PsycARTICLES and ERIC (via EBSCOhost)

(  
child OR adolescent OR youth OR teenager\* OR  
student\* OR pupil\* OR "school-aged" OR "young  
people" OR "nonclinical population" OR "typical  
development"  
)  
AND  
(

"social skills training" OR "social skills intervention" OR "socio-emotional learning" OR "social and emotional learning" OR "emotional competence" OR "social competence" OR "interpersonal skills" OR "communication skills training" OR "SEL" OR "group-based intervention" OR "skills-based training" OR "soft skills development" OR "social communication" OR "social behavior" OR prevention OR "preventive social skills training" OR "preventive intervention" OR "behavioral prevention" OR SSGT OR "Social Skills Group Training"

)

AND

(

"emotion regulation" OR "emotional development" OR "social functioning" OR "prosocial behavior" OR "self-regulation" OR "communication skills" OR empathy OR "behavioral adjustment" OR "psychosocial outcomes" OR "psychological well-being"

)

AND

(

"randomized controlled trial" OR "quasi-experimental" OR "intervention study" OR "empirical study" OR "program evaluation" OR "pre-post study" OR "outcome evaluation" OR effectiveness

)

PubMed

(

child[Title/Abstract] OR adolescent[Title/Abstract] OR youth[Title/Abstract] OR teenager\*[Title/Abstract] OR student\*[Title/Abstract] OR pupil\*[Title/Abstract] OR "school-aged"[Title/Abstract] OR "young people"[Title/Abstract] OR "nonclinical population"[Title/Abstract] OR "typical development"[Title/Abstract]

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AND

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"social skills training"[Title/Abstract] OR "social skills intervention"[Title/Abstract] OR "socio-emotional learning"[Title/Abstract] OR "social and emotional learning"[Title/Abstract] OR "emotional competence"[Title/Abstract] OR "social competence"[Title/Abstract] OR "interpersonal skills"[Title/Abstract] OR "communication skills training"[Title/Abstract] OR SEL[Title/Abstract] OR "group-based intervention"[Title/Abstract] OR "skills-based training"[Title/Abstract] OR "soft skills development"[Title/Abstract] OR "social communication"[Title/Abstract] OR "social behavior"[Title/Abstract] OR prevention[Title/Abstract] OR "preventive social skills training"[Title/Abstract] OR "preventive

intervention"[Title/Abstract] OR "behavioral prevention"[Title/Abstract] OR SSGT[Title/Abstract] OR "social skills group training"[Title/Abstract]

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AND

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"emotion regulation"[Title/Abstract] OR "emotional development"[Title/Abstract] OR "social functioning"[Title/Abstract] OR "prosocial behavior"[Title/Abstract] OR "self-regulation"[Title/Abstract] OR "communication skills"[Title/Abstract] OR empathy[Title/Abstract] OR "behavioral adjustment"[Title/Abstract] OR "psychosocial outcomes"[Title/Abstract] OR "psychological well-being"[Title/Abstract]

)

AND

(

"randomized controlled trial"[Publication Type] OR "quasi-experimental"[Title/Abstract] OR "intervention study"[Title/Abstract] OR "empirical study"[Title/Abstract] OR "program evaluation"[Title/Abstract] OR "pre-post study"[Title/Abstract] OR "outcome evaluation"[Title/Abstract] OR effectiveness[Title/Abstract]

)

Scopus

TITLE-ABS-KEY(

(

child OR adolescent OR youth OR teenager\* OR student\* OR pupil\* OR "school-aged" OR "young people" OR "nonclinical population" OR "typical development"

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AND

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"social skills training" OR "social skills intervention" OR "socio-emotional learning" OR "social and emotional learning" OR "emotional competence" OR "social competence" OR "interpersonal skills" OR "communication skills training" OR SEL OR "group-based intervention" OR "skills-based training" OR "soft skills development" OR "social communication" OR "social behavior" OR prevention OR "preventive social skills training" OR "preventive intervention" OR "behavioral prevention" OR SSGT OR "social skills group training"

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 )

Web of Science

TS=(  
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 child OR adolescent OR youth OR teenager\* OR student\* OR pupil\* OR "school-aged" OR "young people" OR "nonclinical population" OR "typical development"  
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 )  
 AND  
 (  
 "randomized controlled trial" OR "quasi-experimental" OR "intervention study" OR "empirical study" OR "program evaluation" OR "pre-post study" OR "outcome evaluation" OR effectiveness  
 )  
 )

Additional filters:

Document type: Article, Conference Paper, Book  
 Language: English.

**Participant or population** Children and adolescents aged 6–18 years in typical (normative) development, representing non-clinical samples.

**Intervention** Training aimed at developing socio-emotional competencies, conducted either in person or online.

**Comparator** The comparators will include different types of control groups: both active (other interventions) and passive (wait-list, no intervention).

**Study designs to be included** The review will include both experimental and quasi-experimental studies evaluating the effectiveness of socio-emotional skills training. Eligible designs may involve randomized or non-randomized control groups, pre-post assessments, and various forms of comparison (e.g., active or passive control conditions).

**Eligibility criteria** Description in the line of the PICO framework:

Population (P):

Children and adolescents aged 6 to 18 years who are in typical (normative) development. Only nonclinical populations will be included. Studies involving clinical samples (e.g., individuals with diagnosed psychiatric or neurodevelopmental disorders) will be excluded.

Intervention (I):

Structured training programs aimed at developing socio-emotional competencies (e.g., emotional regulation, empathy, interpersonal skills). Interventions may be delivered in-person or online, across various settings such as schools, after-school programs, or community centers.

Comparator (C):

Studies must include a comparator group. Eligible comparators include:

Active controls (e.g., alternative interventions), and

Passive controls (e.g., wait-list, no intervention, or treatment-as-usual).

Outcomes (O):

Studies must report quantitative measures of socio-emotional competencies. Eligible outcomes include standardized or validated assessments capturing changes in areas such as emotional regulation, self-awareness, empathy, prosocial behavior, and social problem-solving. Only studies using quantitative data (e.g., questionnaires, rating scales, behavioral checklists) will be included; studies relying solely on qualitative data will be excluded.

Study Design:



Experimental and quasi-experimental designs will be included. Eligible studies must use a control or comparison group and report at least pre- and post-intervention outcomes. Randomized and non-randomized controlled trials are both eligible.

Additional pre-specified limits

Language: English and Polish only (team's working languages; avoids translation error).

Time frame: No date restrictions (ensures a complete historical sweep).

Publication status: Peer review not mandatory, but its absence will be recorded.

Setting / country: No geographical restrictions (preserves cross-cultural scope).

**Information sources** Following databases will be searched: PsychInfo; Psycharticles; Pubmed; ERIC; Scopus, and Web of Science.

**Main outcome(s)** The primary outcomes of interest will be quantitative indicators of socio-emotional and social functioning among children and adolescents aged 6–18 years. Specifically, included studies must report pre- and post-intervention measurements assessing one or more of the following: 1) Emotional development, such as: emotional recognition, emotion regulation, emotional awareness; 2) Social functioning, including: prosocial behavior, cooperation, social initiation and response, peer relationships, conflict resolution; 3) Communication skills, such as: verbal and non-verbal communication, active listening, assertiveness; 4) Psychological well-being indicators, such as: self-esteem, self-efficacy, anxiety reduction, depressive symptoms (if applicable and measured in nonclinical samples).

All included outcomes must be measured using quantitative tools, such as behavioral rating scales, self-report questionnaires, teacher or parent reports, or structured observational checklists. Examples of accepted instruments may include (but are not limited to): the Social Skills Rating System (SSRS), Strengths and Difficulties Questionnaire (SDQ), Emotion Regulation Questionnaire (ERQ), or the Child Behavior Checklist (CBCL).

Undesirable or adverse outcomes (e.g., increased aggression, peer rejection, emotional withdrawal) will also be considered when reported.

Studies that rely solely on qualitative outcomes or use non-validated surrogate measures that are not

clearly related to socio-emotional competencies will be excluded.

**Additional outcome(s)** In addition to the primary outcomes related to socio-emotional development, the review will consider the following secondary outcomes, provided they are measured quantitatively and relate to the effect or implementation of the intervention: 1) Academic-related outcomes, such as school engagement, classroom behavior, or teacher-reported learning-related behaviors, when clearly linked to social skill development. 2) Motivation and participation, including measures of student engagement in the training process (e.g., attendance, drop-out rates, satisfaction). 3) Transfer or generalization of skills, such as observed application of trained skills in naturalistic settings (e.g., school, peer interactions), if assessed with quantitative tools. 4) Follow-up measures (e.g., 3 or 6 months post-intervention), if available, to evaluate the sustainability of effects over time.

**Data management** Citation handling and screening platform

All search results will be exported to EndNote 21 for initial de-duplication and then imported into Covidence (Veritas Health Innovation, Melbourne, Australia), the cloud-based workflow system that will host the entire review record.

**Team configuration**

Two Reviewers with knowledge in the field will work independently at every selection stage. Discrepancies will first be resolved through discussion; if consensus cannot be reached, Reviewer 3 will join the discussion and final decision will be made democratically.

**Study-selection workflow in Covidence**

Title/abstract screening – dual independent assessment.

Full-text review – dual independent assessment; reasons for exclusion captured in structured drop-down menus.

A PRISMA-flow diagram will be auto-generated by Covidence and verified manually.

**Data-extraction and coding**

A piloted extraction form will be built in Covidence, covering:

Bibliographic details: authors, year, country

Participants' characteristics: age range, sample size, gender distribution

Study design and methods: study design (eg., RCT, quasi-experimental, pre-post with control), follow-up duration (eg. none, 3-month)

Intervention: name of the program, theoretical basis, main components, mode of delivery (in-person, online, hybrid); format (group-based/individual), facilitator background (eg., teacher, psychologist, peer-led), fidelity or adherence measures reported (Yes/No); frequency of sessions  
 Comparator: type of control group (active, passive); description of comparator activity  
 Outcomes: name of an outcome, measurement tool, validation of a tool (yes, no, not reported), reporter (eg. self, teacher, parent, observer), statistical significance (yes/no)  
 Notes - comments from reviewers

Extraction will again be performed by the two primary reviewers independently, with automatic conflict flags in Covidence; discordant fields will be reconciled through discussion or third-reviewer adjudication.

Data storage and security  
 Covidence automatically time-stamps all decisions and retains version history.

After completion, the final cleaned data set will be exported to both Excel and CSV formats and archived on the Open Science Framework (OSF) project page (private until publication, then public).

**Quality assessment / Risk of bias analysis** The methodological quality of the included studies will be assessed using validated tools appropriate to their design. For randomized controlled trials (RCTs), we will use the Cochrane Risk of Bias 2.0 (RoB 2) tool, which evaluates bias across five domains: randomization process, deviations from intended interventions, missing outcome data, measurement of outcomes, and selection of the reported result.

For non-randomized or quasi-experimental studies, we will apply the ROBINS-I (Risk Of Bias In Non-randomized Studies – of Interventions) tool. This tool allows for a structured judgment of bias in studies where randomization is not feasible and assesses domains such as confounding, selection, classification of interventions, deviations from intended interventions, missing data, measurement of outcomes, and selection of reported results.

Any disagreements between reviewers will be resolved through discussion or consultation with a third reviewer.

To assess the overall quality and certainty of the evidence across outcomes, we will use the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach. GRADE

considers five key domains: risk of bias, inconsistency, indirectness, imprecision, and publication bias. The quality of evidence for each primary outcome will be rated as high, moderate, low, or very low.

GRADE Summary of Findings (SoF) tables will be generated to present the key results, including effect sizes, number of participants and studies, and overall certainty of the evidence.

**Strategy of data synthesis** Given the expected heterogeneity of study designs, interventions, and outcome measures, we will conduct a narrative synthesis of the findings, rather than a statistical meta-analysis. The synthesis will be structured thematically, focusing on key aspects of group-based socio-emotional skills training (SST) programs for children and adolescents.

Specifically, the synthesis will address the following elements:

Theoretical frameworks underpinning the interventions (e.g., social learning theory, developmental psychology, evidence-based approaches),

Core components and structure of the training programs (e.g., session length and frequency, targeted skills, instructional methods),

Participant characteristics (e.g., age, gender, school setting),

Delivery format (e.g., in-person, online, hybrid), and facilitator qualifications,

Evaluation methods, including the type of quantitative outcomes assessed, tools used, and timing of assessments.

The effectiveness of the intervention will be evaluated by comparing:

- the intervention group with a waitlist control group;
- the intervention group with a placebo control group and a waitlist control group;
- the intervention group with a placebo control group;
- the intervention group alone.

Descriptive tables will be used to summarize key characteristics and findings of included studies. Patterns and differences across interventions will be highlighted, and areas of consistency and divergence will be critically analyzed.

Missing or unclear information will be addressed by contacting study authors when feasible.

**Subgroup analysis** Although no statistical subgroup analysis will be conducted, we plan to explore potential variation in program characteristics and outcomes across predefined subgroups as part of the narrative synthesis. These comparisons will help identify patterns related to the design, delivery, and effectiveness of socio-emotional skills training programs.

The following pre-specified factors will guide subgroup comparisons:

Age group of participants (e.g., younger children 6–12 vs. adolescents 13–18),

Mode of delivery (e.g., in-person vs. online),

Setting (e.g., school-based vs. community-based),

Facilitator background (e.g., teacher, psychologist, peer-led),

Theoretical foundation of the program (e.g., based on social learning theory, cognitive-behavioral framework, developmental psychology),

Intensity and duration of the intervention (e.g., number of sessions, weekly frequency),

Outcome domains targeted (e.g., emotional regulation vs. communication skills).

These subgroup factors were selected a priori based on theoretical and practical relevance identified in previous literature. The aim is to contextualize the effectiveness and structure of TUS programs rather than to infer causal differences between subgroups.

**Sensitivity analysis** Although this review does not include a quantitative meta-analysis, we will conduct qualitative sensitivity analyses to assess the robustness of the findings in relation to methodological quality and key design characteristics of the included studies.

Findings from these sensitivity analyses will be described narratively. If results and interpretations remain consistent across these comparisons, the overall conclusions will be considered more robust. Any divergence in findings will be explicitly discussed, with attention to the potential influence of methodological or reporting quality.

**Language restriction** English.

**Country(ies) involved** Poland.

**Keywords** social skills training; socio-emotional development; children; adolescents; nonclinical population; intervention; systematic review.

**Dissemination plans** The results of the proposed systematic review will be submitted for publication in a peer-reviewed international journal to ensure wide dissemination within the scientific and professional community.

#### **Contributions of each author**

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