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Research on Social and Emotional Learning Interventions for Rural Students Experiencing Disadvantage: Evidence, Implementation Conditions, and Implications for China

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Abstract

Social and emotional learning (SEL) offers a comprehensive framework for understanding the links between students' social-emotional development and academic adjustment and for broadening support for disadvantaged rural students. Through a narrative literature review, this paper examines target populations, intervention models, effectiveness evidence, and implementation conditions, drawing on international meta-analyses, randomized controlled trials, and studies of SEL implementation in rural Chinese schools. Evidence suggests that universal school-based SEL interventions can improve students' social-emotional skills, attitudes, and behaviors, with potential benefits for academic performance. Follow-up studies indicate that these effects may persist beyond the intervention period. However, findings vary across populations, age groups, program content, and implementation contexts; thus, the effectiveness of international programs cannot be assumed to transfer directly to Chinese rural students experiencing academic difficulties. Preliminary evidence from rural Chinese schools highlights both the feasibility of teacher-led programs and the barriers to their implementation, underscoring the importance of teacher training, organizational support, adequate time and resources, and community involvement. Building on these findings, the paper discusses implications for China, including target population identification, tiered support, cultural adaptation, sustained teacher professional development, and policy coordination. Further research should assess the applicability of these approaches through localized measurement, process evaluation, and rigorous intervention studies.

Keywords

Social and Emotional Learning; Rural Students Experiencing Disadvantage; Academic Difficulties; Intervention Models; Implementation Conditions; Localization

1. Problem Statement

Efforts to improve the quality of rural education must address the challenge of providing effective support for students facing academic difficulties and other disadvantages. Traditional responses to academic disparities have included knowledge remediation, supplementary exercises, and extended learning time. While these strategies address specific knowledge gaps, they may not fully support students' broader developmental needs, particularly when issues such as low motivation to learn, challenges with emotion regulation, low self-efficacy, or insufficient relational support are present. Developmental research demonstrates that cognitive, social, and emotional competencies are interconnected in individual development and that early experiences and environmental factors shape their development. Although skill development is dynamically complementary, not all academic difficulties stem from inadequate social and emotional competencies, nor can social and emotional interventions substitute for targeted subject instruction (Heckman, 2006). Consequently, it is important to investigate whether social and emotional learning (SEL) can provide complementary developmental support for students, informed by an understanding of the specific causes of their academic challenges.

Social and emotional learning (SEL) refers to the process by which children and adults acquire and apply knowledge, skills, and attitudes necessary for developing self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Weissberg et al., 2015). SEL should not be equated solely with "training in non-cognitive skills," nor should it be limited to stand-alone courses or counseling activities. Its educational significance lies in a comprehensive understanding of students' emotional experiences, interpersonal relationships, behavioral regulation, and academic engagement within an integrated framework. Research indicates that social, emotional, and academic development are interconnected domains, and that schools can foster student growth through curricula, instructional practices, and organizational environments (Jones & Kahn, 2017). OECD studies have identified associations between social and emotional skills, academic performance, and various life outcomes; however, such associations do not establish a unidirectional causal relationship (OECD, 2015, 2021).

In recent years, the concept of SEL and its associated practices have increasingly featured in educational research and school reform discussions in China. Domestic studies have explored the development of students' social and emotional competencies and the transition from stand-alone courses to comprehensive, school-wide initiatives (Du & Mao, 2019). However, there remains a need to clearly distinguish between established evidence and unverified hypotheses regarding how SEL can support disadvantaged rural students in China, particularly those with persistent academic difficulties. International research offers evidence from universal school-based interventions, targeted programs for at-risk groups, and long-term follow-up studies. Nevertheless, the populations and institutional and

cultural contexts in these studies differ from those of rural schools in China. While studies of SEL programs in rural China have begun to yield direct evidence of local implementation, their scope and coverage remain limited. Therefore, this paper reviews relevant research organized around the themes of "intervention populations–intervention models–evidence of effectiveness–implementation conditions" and discusses implications for China, clarifying the boundaries of the evidence's applicability. This paper is a narrative review, organized around representative meta-analyses, intervention studies, and policy documents cited in the original manuscript. As the available materials do not include databases, search dates, search strings, or an inclusion and exclusion flow, this paper does not claim to be a systematic review or systematic evidence synthesis.

2. Characteristics of the Target Population: Social and Emotional Development among Disadvantaged Rural Students

2.1 Disadvantage and Cumulative Inequalities in Social and Emotional Development

Poverty, prolonged stress, and other early adversities can negatively influence the development of children's executive functions, self-regulation, and school adjustment. Research in developmental psychobiology has demonstrated significant associations between poverty-related stress and the development of executive functions, including working memory and inhibitory control, which are linked to school readiness and later learning performance (Blair & Raver, 2015). Studies involving young children from low-income families have also explored the relationships between behavioral regulation, cognitive regulation, and early developmental outcomes (Fishbein et al., 2016). The OECD's international survey has documented associations between social and emotional skills and socioeconomic background (OECD, 2021). However, these studies examine different populations, age groups, and measurement indicators. Therefore, they do not support the conclusion that all disadvantaged children exhibit identical competency deficits, nor can group-level statistical associations be directly applied to individual students.

In rural areas of China, students may experience disadvantage due to multiple factors, such as family economic resources, parental migration for work, caregiving arrangements, school resources, and community support. The combination of these risks varies among students. Fu et al. (2025), in a study examining the implementation of a teacher-led social and emotional learning (SEL) program in two rural schools in southwestern China, observed that rural children, especially those with migrant parents, may have distinct psychological, emotional, and behavioral support needs. The study also indicated that the absence of professional services in schools is a contextual factor that program design and implementation must address. It is important to note that this study focused on a specific program and two schools,

and its findings cannot be generalized to all regions or all rural students. For students facing academic difficulties, repeated failures may interact with low self-efficacy, negative learning emotions, and limited classroom participation. The specific manifestations and degree of influence of these factors in individual students require individual assessment. Thus, academic difficulties and social and emotional development should be viewed as potentially interacting processes, rather than as a fixed, unidirectional causal relationship.

2.2. Developmental Plasticity and Opportunities for Compensatory Intervention

Disadvantage and developmental risk are not inextricably linked. Children's development demonstrates plasticity, and appropriate educational experiences and supportive environments can foster relevant competencies (Blair & Raver, 2015). From an economic perspective on skill formation, Heckman (2006) highlighted the importance of investing in early capabilities and the dynamic complementarity among different types of skills. This theory should not be oversimplified to suggest that "early intervention is inevitably effective" or that "intervention becomes less effective as children grow older." A randomized controlled study of the Chicago School Readiness Project (CSRP) found that an intervention aimed at improving classroom emotional and behavioral management enhanced self-regulation and pre-academic skills among low-income preschool children, with self-regulation mediating the relationship between the intervention and academic outcomes (Raver et al., 2011). This finding provides evidence for a potential mechanism linking social and emotional support with early learning. However, the participants in this study were low-income preschool children and should not be equated with primary and secondary school students experiencing academic difficulties in rural China. For the latter group, SEL should be regarded as a supplement to subject teaching and individualized support, rather than a replacement for either.

2.3. Distinctive Features of Rural Contexts and Diversity among Targeted Students

Students targeted by social and emotional learning (SEL) interventions should not be regarded as a homogeneous group defined by fixed deficits. Taylor et al. (2017), in a follow-up meta-analysis of universal school-based SEL interventions, reported that intervention benefits were broadly similar across student groups with varying racial and ethnic backgrounds, socioeconomic statuses, and school locations. While this finding supports the inclusion of students from diverse backgrounds in universal SEL programs, it does not imply that all rural students will benefit equally, nor does it determine the effect size for specific subgroups of rural students experiencing academic challenges. Students vary in their social and emotional development, family support, learning experiences, and exposure to risk. Therefore,

universal support may provide a foundational level of assistance, with additional targeted interventions for students experiencing persistent difficulties or elevated risks. Tiered support should be informed by ongoing observation and evidence from multiple sources, rather than reliance on a single assessment or a fixed classification as a "student with learning difficulties."

3. Intervention Models: From Curriculum-Based Programs to Systemic Change

3.1. Universal Curriculum-Based Intervention Models

Universal curriculum-based interventions are designed to target all students and systematically foster social and emotional skills through structured curricula or activities integrated into daily instruction. PATHS (Promoting Alternative Thinking Strategies) serves as a representative program in this domain. The Fast Track study conducted by the Conduct Problems Prevention Research Group (1999) implemented the PATHS curriculum at the classroom level and assessed outcomes such as student behavior and classroom environment. Fishbein et al. (2016) examined the implementation of the PATHS curriculum with young children from low-income families. They reported improvements in emotion regulation, prosocial behavior, and certain indicators of behavioral and cognitive regulation. Collectively, these studies indicate that structured curricula can enhance social, emotional, and behavioral outcomes among children within specific age groups and contexts. Nevertheless, variations in program design, sample characteristics, and outcome measures across studies limit the generalisability of these effects to all rural students experiencing academic difficulties.

The Head Start REDI program exemplifies curriculum integration by combining social and emotional learning (SEL) with early academic readiness. In preschool settings serving children from low-income families, the program integrated an SEL curriculum with language and early literacy activities, promoting child development through classroom interaction, role-play, and teacher support (Bierman et al., 2008). This does not imply that preschool programs should be directly replicated in primary and secondary schools. Instead, it demonstrates that SEL can be aligned with subject-specific instructional objectives, providing opportunities to practice social and emotional skills through reading discussions, collaborative inquiry, problem-solving, and classroom feedback. The effectiveness of curriculum integration depends on the clarity of instructional objectives, teachers' relevant competencies, and the appropriateness of activities for students' developmental stages.

3.2. Multilevel and Comprehensive Intervention Models

Multilevel intervention models integrate universal, selective, and indicated support based on students' levels of risk and support needs. Fast Track is a representative

comprehensive program within developmental prevention, encompassing interventions at the classroom, family, peer group, and individual levels. However, the reference from the Conduct Problems Prevention Research Group (1999) cited in the original manuscript focuses specifically on the program's initial classroom-level effects. This reference alone does not provide evidence for all family and individualized intervention components or for long-term outcomes. Therefore, this paper uses the reference solely to illustrate research on classroom-level interventions and does not assert the effectiveness of every component of the full program. For rural students experiencing academic difficulties, a single curriculum is unlikely to address the complex needs of all students. Building on universal support, schools should provide more targeted assistance to students with persistent learning, behavioral, or relational difficulties. The intensity and content of such support should be determined according to students' needs, available school resources, and access to professional referral services. Full models from overseas programs should not be transferred directly.

3.3. Whole-School Systemic Change Models

Whole-school systemic change emphasizes that SEL should not be delivered solely as an isolated, specialized course. It should also be connected with classroom teaching, teacher–student relationships, school policies and systems, and collaboration with families and communities (Du & Mao, 2019; Weissberg et al., 2015). This approach helps avoid assigning sole responsibility for social and emotional development to a single teacher or a single course. For rural schools, school size, teacher–student relationships, and community networks may create opportunities for organizational collaboration. However, a small school does not necessarily have sufficient resources or adequate relational support. Schools may also face constraints such as teachers taking on multiple roles, insufficient professional support, and unstable family participation. The feasibility of a whole-school approach should therefore be judged in relation to specific organizational conditions; certain structural characteristics of rural schools should not automatically be regarded as "natural advantages."

3.4. Teacher-Led Task-Shifting Models

In contexts where professional mental health personnel are relatively scarce, having trained teachers deliver structured SEL programs is a feasible way to expand service coverage. Fu et al. (2025) examined teachers' experiences of implementing the Positive Growth Curriculum (PGC) in two rural schools in southwestern China. The study indicated that training, implementation support, and program design helped teachers accept and deliver the curriculum. At the same time, organizational pressure to prioritize academic achievement, administrative burdens, insufficient community support, and funding constraints undermined the program's feasibility

and sustainability. The meta-analysis by Durlak et al. (2011) also showed that universal SEL programs delivered by school teachers can achieve positive effects. It is important to distinguish between "teachers can implement a program" and "teachers can replace professionals." Task-shifting should be limited to educational support within teachers' scope of competence and accompanied by supervision, referral, and crisis-response mechanisms. Responsibility for psychological treatment or clinical assessment must not be transferred to ordinary teachers.

4. Evidence of Effectiveness: From Immediate Effects to Long-Term Returns

4.1. Overall Effects: Cumulative Evidence from Large-Scale Meta-Analyses

Regarding the overall effects of universal school-based SEL interventions, Durlak et al. (2011) conducted a meta-analysis of 213 studies involving 270,034 students from kindergarten through high school. Compared with control groups, students who participated in SEL programs showed improvements in social and emotional skills, attitudes, and positive social behavior; problem behaviors decreased, and academic performance improved. The reported improvement in academic performance was approximately equivalent to 11 percentile points. The study also indicated that whether programs incorporated the SAFE elements (sequenced, active, focused, explicit) and the quality of implementation were related to intervention outcomes. Cipriano et al. (2023) included 424 studies, 252 programs, and 575,361 students from 2008 to 2020 in their meta-analysis. They found that universal school-based SEL interventions generally had positive results in skills, attitudes, behavior, school climate and safety, peer relationships, school functioning, and academic achievement. However, the study also identified substantial heterogeneity in program content, implementation characteristics, contexts, and implementation quality. Thus, the meta-analytic evidence supports the conclusion that universal school-based SEL interventions have positive effects overall; it does not show that every program will necessarily be effective in every school.

4.2. Long-Term Effects: Evidence from Follow-Up Studies

Regarding the sustained effects of interventions, Taylor et al. (2017) conducted a follow-up meta-analysis of 82 universal school-based SEL interventions involving 97,406 students, with follow-up periods ranging from 6 months to 18 years after the interventions ended. The results showed that students who had participated in the interventions continued to outperform control-group students in social and emotional skills, attitudes, and well-being. The relevant benefits were broadly similar across student groups with different socioeconomic backgrounds and school locations. Follow-up studies of the REDI program also reported that some positive effects remained observable after children entered kindergarten and primary school

(Bierman et al., 2014; Welsh et al., 2020). Nevertheless, the programs, samples, and outcome measures included in follow-up studies differed, and subsequent educational experiences and environmental changes may also influence long-term effects. A more accurate formulation is therefore that some SEL programs have demonstrated certain sustained benefits, rather than that SEL interventions can universally and consistently change the long-term developmental trajectories of all students.

4.3. Differential Benefits for Students Experiencing Disadvantage

The implications of existing evidence for rural students experiencing disadvantage require a distinction between direct and indirect evidence. First, the follow-up meta-analysis by Taylor et al. (2017) found that the benefits of universal SEL interventions were broadly similar across groups with different school locations and socioeconomic backgrounds. This provides a basis for offering universal support in different types of schools. However, it is not a specific test of the effects of intervention among rural students experiencing academic difficulties in China. Second, the REDI and PATHS studies provide evidence of intervention effects among children from low-income families or children facing particular risks (Bierman et al., 2014; Fishbein et al., 2016). However, their age groups, program content, and educational-system contexts differ from those of primary and secondary schools in rural China. Third, the CSRP study suggests that self-regulation may mediate the influence of classroom interventions on pre-academic skills in preschool children (Raver et al., 2011). It does not, however, justify the claim that self-regulation is the common root of academic difficulties among rural students experiencing learning difficulties. On this basis, a proposition can be advanced for testing in local research: for some students who simultaneously experience difficulties with emotion regulation, learning engagement, or relational support, SEL may complement subject teaching by improving the conditions for learning engagement.

4.4. Cost-Effectiveness: Economic Evidence on Interventions

Belfield et al. (2015) conducted cost–benefit analyses of six evidence-based SEL programs and found that the estimated benefits of each program exceeded its costs. The average benefit–cost ratio reported in the study was approximately 11:1. This finding indicates that SEL may have economic value under particular programs and analytical assumptions. However, estimates of benefits depend on program effects, cost accounting, follow-up periods, and economic models. They cannot be directly treated as the expected rate of return for all SEL programs or for rural schools in China. Heckman's (2006) discussion of investment in early skill development among disadvantaged children provides an economic perspective on early development. However, it should not be conflated with cost–benefit estimates for specific SEL programs. For rural schools in China, decisions about whether a particular program

is worth promoting require evaluation of implementation costs, staffing inputs, opportunity costs, and locally generated evidence of effectiveness.

5. Implementation Conditions: The Contextual Dependence of Intervention Effects

5.1. The Central Importance of Implementation Quality and Fidelity

SEL programs do not automatically produce their expected effects simply because curriculum materials are introduced. The implementation process is an important part of understanding program outcomes. Durlak and DuPre (2008), in their review of research on the implementation of prevention and promotion programs, noted that multiple dimensions of implementation quality—including implementation fidelity, intervention dosage, quality of delivery, and participant responsiveness—may affect program outcomes. Organizational capacity, implementer characteristics, training and support, and the fit between the program and its context may also influence implementation. Durlak et al. (2011) further noted that implementation quality and the SAFE design elements are related to the effectiveness of universal SEL programs. Therefore, when evaluating SEL programs in rural schools, it is not sufficient to record whether classes were held. Evaluators should also examine the actual number of sessions delivered, whether teachers conducted activities in accordance with the program's core objectives, the extent of student participation, and the support provided by the school. At the same time, fidelity should not be understood as mechanical replication. Reasonable cultural and contextual adaptation is also important, provided that the program's core mechanisms are retained.

5.2. Teacher-Related Factors: From Training to Ongoing Supervision

Teachers are important implementers of school-based SEL programs, but teacher training should not be limited to one-off knowledge transmission. The meta-analysis by Durlak et al. (2011) showed that SEL programs implemented by school teachers can achieve positive outcomes. The qualitative study by Fu et al. (2025) in rural schools in China revealed that teachers' understanding of and commitment to the program, the fit between the curriculum and students' needs, training and implementation support, administrative burdens, and time and resources all affect program acceptability, feasibility, and sustainability. The study also suggested that even when teachers are willing to implement a program, internal school pressure to prioritize academic achievement and a lack of external resources may remain barriers. A teacher support system should therefore include, at a minimum, an understanding of the program's underlying principles, classroom activity design, identification of student differences, implementation feedback, and necessary professional referral. Adjustments made by teachers during implementation should not simply be regarded as "deviations." The reasons for, content of, and effects of

such adjustments on the program's core objectives should be documented to determine which adaptations facilitate implementation and which may weaken program effects.

5.3. Systemic Support from School Organizations and the Policy Environment

Sustained implementation of SEL requires support at the school organizational level. Related research emphasizes the interrelationship between social, emotional, and academic development and the need for schools to coordinate curriculum and instruction, school climate, and institutional arrangements (Jones & Kahn, 2017; Weissberg et al., 2015). At the school level, program stability is affected by whether administrators incorporate SEL into explicit educational objectives, provide teachers with time for collaboration, establish feedback mechanisms for implementation, and develop appropriate links with families and communities. For rural schools with limited resources, the key is not simply to add a course or an assessment requirement. Rather, SEL objectives should be reasonably embedded in existing teaching and classroom management, with the necessary boundaries concerning time, personnel, and support clearly defined, so that SEL does not become an additional task without adequate resources.

5.4. Specific Barriers in Rural Contexts

Rural schools may face multiple contextual constraints when implementing SEL. Fu et al. (2025), in two rural schools in southwestern China, found that although a teacher-led program was acceptable to some extent, organizational pressure to prioritize academic achievement, administrative burdens, insufficient community participation, and limited government funding threatened its feasibility and sustainability. Drawing on this study, several issues can be identified for further examination across different regions: whether schools have sufficient mental health professionals and supervision resources; whether teachers have stable time to implement; whether families and communities can participate; and whether curriculum cases and modes of expression are relevant to students' lives. These factors should not be generalized as fixed barriers shared by all rural schools, nor should students' needs be inferred solely from their rural status. Program design should begin with an assessment of the needs of the school and its students, followed by decisions about curriculum content, implementers, and the intensity of support.

6. Implications for China: A Chinese Approach for Supporting Rural Students Experiencing Academic Difficulties

6.1. Cultural Adaptation: From "Curriculum Transfer" to "Rooted Development"

Localization does not primarily mean translating overseas curricula item by item. It means examining whether their core objectives, activity formats, and expressions of values are compatible with the life experiences of rural students and the institutional arrangements of schools in China. First, in terms of educational objectives, SEL goals such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making can be brought into dialogue with relevant requirements concerning fostering virtue through education, the integrated development of moral, intellectual, physical, aesthetic, and labor education, and students' core competencies. However, the two sets of concepts should not simply be declared entirely equivalent. Second, in terms of curriculum content, scenario-based tasks can be developed from students' familiar experiences of family life, peer interaction, labor practices, mutual assistance in the community, and online life. At the same time, rural culture and collective life should not be idealized. For students with diverse family structures and caregiving arrangements, a single family model should not be treated as the only norm. Third, in terms of implementation, opportunities to practice social and emotional skills can be embedded in classroom discussions, collaborative learning, reading instruction, labor education, and the resolution of everyday conflicts, rather than mechanically replicating the timetable of overseas programs. Curriculum localization should retain identifiable core objectives and continuously examine their appropriateness through student feedback and implementation records.

6.2. Teacher Training: Building an Integrated Support System of "Training, Supervision, and Workload Reduction"

Teacher support should move beyond one-off training towards sustained professional development and organizational safeguards. Pre-service education can strengthen content knowledge in children's social and emotional development, classroom interactions, emotional and behavioral support, and the identification of student differences. In-service training should be organized around specific classroom situations and use demonstration, rehearsal, peer observation, case discussion, and feedback to help teachers translate concepts into instructional practices. County-level teacher development institutions, urban–rural school partnerships, and university professional teams may provide ongoing support where resources permit. However, specific arrangements should be designed in accordance with existing local mechanisms; it should not be assumed that all regions have access to remote experts or dedicated supervision resources. Schools should also coordinate teachers' non-teaching duties, prioritize integrating SEL into existing curricula and classroom management, and reduce repetitive activities and additional form-filling and assessment requirements. For serious psychological distress or safety risks beyond teachers' professional competence, clear referral pathways should be established. Ordinary teachers should not be expected to

assume diagnostic or treatment responsibilities independently.

6.3. Policy Alignment: Institutional Opportunities within "Rural Revitalization" and the "Double Reduction" Policy

Policy alignment should be based on existing institutional objectives and the actual needs of schools, rather than simply packaging SEL as a new administrative task. First, in conjunction with policies on rural revitalization and the revitalization of rural education, support for the holistic development of rural students can be explored through county-level teacher development, urban–rural education partnerships, and the allocation of school resources (Central Committee of the Communist Party of China & State Council, 2018). Relevant funding should be prioritized for teacher training, adaptation of curriculum resources, and necessary professional support, rather than being used solely to purchase standardized curriculum packages. Second, the "Double Reduction" policy emphasizes reducing excessive homework and the burden of off-campus tutoring for students in compulsory education, while improving the quality of school education and after-school services (General Office of the Communist Party of China Central Committee & General Office of the State Council, 2021). After-school services can provide settings for collaborative activities, emotional expression, and peer interaction. However, not all after-school service periods should be converted into SEL classes, and a direct causal relationship should not be asserted between burden reduction and SEL outcomes without verification. Third, for students experiencing persistent academic difficulties, targeted learning and social and emotional support can be provided based on universal support open to all students, drawing on multiple sources of information, including academic performance, classroom observations, student interviews, and communication with families. Identification of academic difficulties should remain dynamic. SEL assessment results should not be used as new labels or as the sole basis for student streaming. When students present mental health risks beyond the scope of school-based educational support, professional referral should be initiated promptly.

7. Conclusion and Directions for Future Research

This paper has reviewed research on the use of social and emotional learning to support rural students experiencing disadvantage, focusing on target populations, intervention models, evidence of effectiveness, and implementation conditions. Existing international meta-analyses generally support the positive effects of universal school-based SEL interventions on social and emotional skills, behavior, and academic outcomes. Some follow-up studies also suggest that intervention benefits may persist into subsequent developmental stages. Implementation studies in rural schools in China further indicate that teacher-led programs warrant practical exploration. However, their sustained implementation is affected by

organizational pressure, teacher workload, resource provision, and community participation. It can therefore be concluded that SEL may form one component of a comprehensive support system for rural students. However, it cannot replace subject teaching, family support, improvements in school resources, or necessary professional services. In particular, the available evidence is not yet sufficient to determine the specific effect sizes or mechanisms of SEL interventions for rural students experiencing academic difficulties.

This paper has three main limitations. First, it is a narrative review, and the literature on which it is based consists mainly of the representative studies cited in the original manuscript. It does not provide a reproducible database search strategy, search dates, or a literature screening process; therefore, it cannot claim to have exhausted all relevant research. Future publications that follow systematic review standards should provide the search and screening methods and report the quality appraisal of the included studies. Second, existing international evidence covers different age groups, countries, programs, and outcome measures, while studies of intervention effects specifically targeting rural students experiencing academic difficulties in China remain limited. Future research needs to conduct trials and long-term follow-up studies suited to local school contexts and report intervention dosage, implementation quality, and differences across student groups. Third, the measurement of social and emotional competencies needs to take into account construct validity, cultural appropriateness, and students' developmental stages, avoiding the simple transfer of scales or the labeling of students based on assessment results. Future research should also combine evaluations of intervention effects with assessments of implementation processes to examine which components are effective for which students and under what school conditions.

Abbreviations

CASEL: Collaborative for Academic, Social, and Emotional Learning
SEL: Social and Emotional Learning

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