



The Effectiveness of Social-Emotional Learning (SEL) Programs on Adolescents' Mental Well-Being: A Systematic Review

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ARTICLE INFO	ABSTRACT
 <p>Received: 30 May 2025 Accepted: 17 Jun 2025 Published: 08 Jul 2025</p>	Adolescent mental health has become a growing concern, with the prevalence of mental health disorders among adolescents rising over the past two decades. In response, Social and Emotional Learning (SEL) emerged as a key educational framework aimed at helping students understand emotions, develop empathy, and make responsible decisions. This systematic review examines the effectiveness of SEL programs on adolescents' mental health. Although SEL interventions vary widely in design, the review specifically focuses on studies that incorporate the five core competencies categorized by the Collaborative for Academic, Social, and Emotional Learning (CASEL). After screening two electronic databases, five relevant studies were selected for analysis. The findings indicate that SEL programs improve various aspects of adolescent mental health, including emotion regulation, reduced acceptance of violence, and increased happiness. However, the results also suggest SEL interventions must adopt a transformative approach tailored to the recipients' needs and educational contexts in order to maximize their effectiveness. These findings highlight the importance of implementing SEL instruction nationwide through state-level legislation to ensure consistent adoption across school districts.
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INTRODUCTION

Adolescent mental health issues have come to the forefront of modern society, as the prevalence of mental health disorders among adolescents, particularly depression and anxiety disorder, has notably increased from 8.1% in 2009 to 15.8% in 2019.¹ In addition, instances of suicide planning and attempted suicide have also increased.² Adolescence is a critical period of development, and the study by Kessler et al.³ shows that almost half of mental illnesses originate during the mid-adolescence period.

Several risk factors contribute to adolescent mental health challenges, including low self-esteem, low self-efficacy, high trait perfectionism, negative family environments, and peer victimization.⁴ Among these, school climate plays a crucial role in fostering mental and emotional

well-being. Lester and Cross et al.⁵ highlight that factors such as security, connectedness, peer support, and teacher relationships are essential for students' social and emotional well-being and behavioral changes. Moreover, the COVID-19 pandemic has exacerbated mental health issues among adolescents. A longitudinal study held in Europe between October 2020 and May 2021 found that adolescents reported increased behavioral problems and diminished social-emotional skills due to the pandemic, emphasizing the need for social and emotional learning.⁶ This underscores the importance of school-based intervention programs for adolescent mental health.

Social and Emotional Learning (SEL) is an educational framework designed to help young people manage emotions, demonstrate empathy, and make responsible decisions (Collaborative for Academic, Social, and Emotional Learning [CASEL]).⁷ Collaborative for Academic, Social, and Emotional Learning (CASEL), an

organization that provides SEL programs, defines five core competencies for effective SEL programs: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.⁷ These competencies involved in SEL programs are known to be an essential component that can enrich students in many ways. One research shows that students demonstrated positive results in their SEL through improved self-efficacy, self-esteem, perseverance, and optimism.⁸ Additionally, SEL competencies are linked to reduced emotional distress, increased resiliency, and better academic achievements.⁹ Long-term positive effects have also been noted, with SEL lessons benefiting students well into their post-graduation lives.¹⁰

Despite these benefits, SEL programs are not universally adopted. According to the 2022 CASEL State Scan¹¹, only 27 states in the U.S. have adopted K-12 SEL competencies, with most guidelines focused on early

childhood rather than higher-grade levels (Collaborative for Academic, Social, and Emotional Learning, n.d.). Research on SEL effectiveness dominantly targets elementary school students, while few studies focus on secondary education.¹² This indicates a need for further research to scrutinize the impact of SEL intervention on older students, specifically those aged 10 to 19.

This systematic review aims to evaluate the effects of SEL lessons on mental health among adolescents in K - 12 educational levels.

MATERIALS AND METHODS

This systematic review followed PRISMA guidelines. It conducted a broad search of two different sources, PubMed and PsycInfo, using keywords like “Social and Emotional Learning,” “SEL,” “Youth,” “Adolescence,” “Mental Health,” and “Mental Well-Being” for studies published in the past decade (2014-2024).

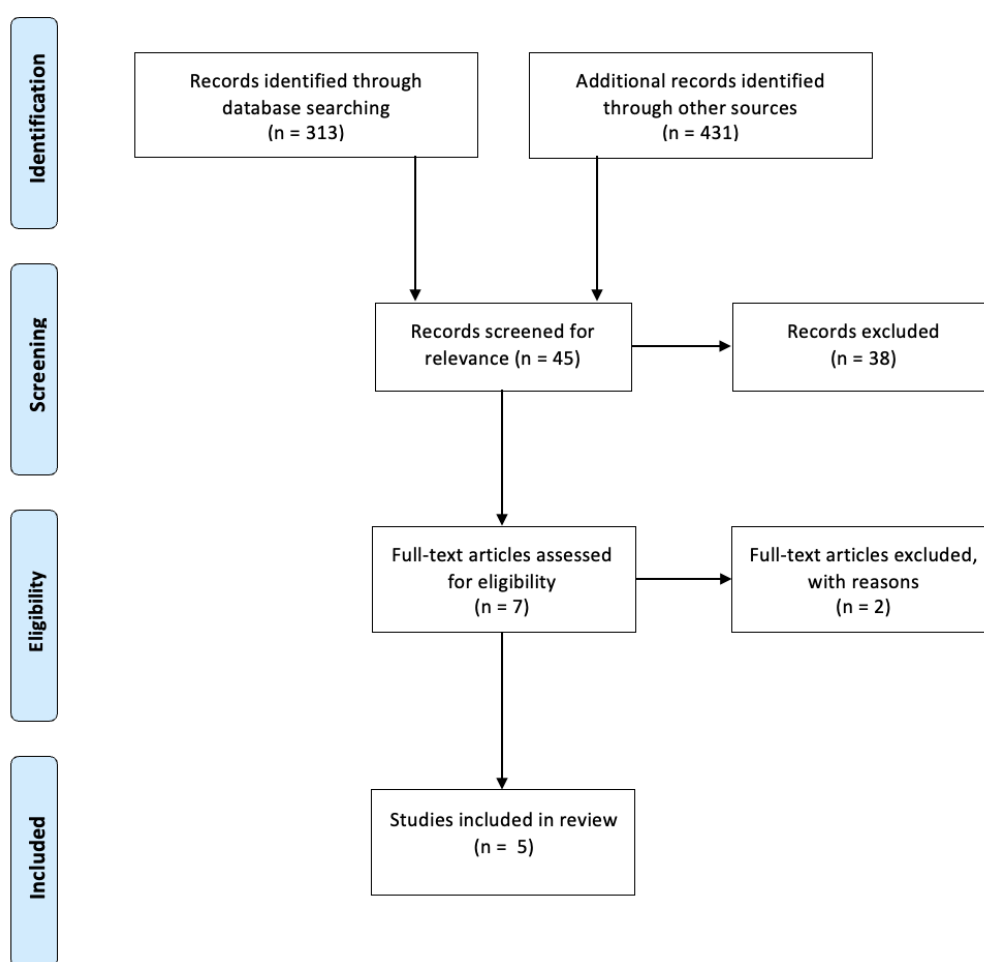


Figure 1. PRISMA Flow Diagram showing the process of literature review in this study

Initially, 764 papers were reviewed through skimming, leaving 45 studies that are relevant to research topic. Then, articles were excluded if studies focused on aspects other than mental health, such as economic effectiveness,

physical changes, or academic achievement. Additionally, studies targeting specific groups (e.g., by nationality, race, refugee status, or special education needs) were excluded.

Eligible studies met the following criteria: (1) assessed SEL program effectiveness on adolescents' mental health; (2) included the five CASEL competencies (self-awareness, self-management, social-awareness, relationship skills, and responsible decision-making); (3) involved adolescents aged 10-19; and (4) were published in English.

Following a full-text review of 7 papers, 5 studies were included in the final analysis. Figure 1 illustrates the screening process used in this research.

RESULTS

Self-Management and Self-Regulation

For students aged 12 to 15, those who received the SEL intervention showed significant improvements in self-management, which was measured through "Planning and Concentration" ($p<0.001$) and "Anger Coping" ($p<0.001$).¹³ In addition, students with a mean age of 13.59 who participated in the SEL program identified a greater number of coping strategies ($p=0.014$).¹⁴

Emotion Regulation and Resilience

Table 1. Detailed Findings of Reviewed Sources

Reference	Study Design	Age Range	Intervention Type	Intervention Level	Relevant Outcomes
Newman et al.	Randomized Controlled Trial	Ranged from 12 to 15 years (M=13.5, SD=0.68)	SKY school incorporates yoga, stress management breath techniques, and SEL-themed interactive activities. SEL themes cover all five CASEL core competencies, which build psychosocial and cognitive skills. Conducted through two phases: Phase I is an active learning period lasting two weeks, eight sessions, and Phase II is eight 1-hour sessions over ten weeks.	Classroom-based	Repeated-measures ANOVAs demonstrated that compared to controls, SKY graduates exhibited significant improvements in emotion regulation, planning and concentration, and distractibility. After 3 months, significant improvements were evidenced in emotion regulation, planning and concentration, identity formation, and aggressive normative beliefs.
Pollak et al.	Prospective	Mean age of 10.34 (SD=0.76)	"You, Me and the Little Monsters" conducted through eight sessions; targeting competencies such as emotional vocabulary, emotion regulation, classroom rules, interpersonal empathy, communication skills, conflict resolution strategies, bystander-effect support strategies, and prosocial behavior strategies. This program satisfied all five core competencies of CASEL.	Universal and school-based	Universal, school-based social-emotional learning programs are effective approaches to supporting peer relationships during school transitions.
Crooks et al.	Randomized Controlled Trial	Mean age of 13.59 (SD=4.42)	An adaptation of The Fourth R, a program that promotes healthy relationships and targets peer and dating	School-based	At post-test, students in intervention schools reported higher average knowledge of

Students with a mean age of 10.34 who underwent a three-phase intervention demonstrated significant increases in their social-emotional skills, as measured through the Self-Report Checklist for Social and Learning Behavior ($p=0.012$).¹⁵ Similarly, students with a mean age of 12.3 showed improvements in emotional regulation, with lower scores on the Difficulties in Emotional Regulation Scale (DERS-SF) after receiving intervention ($p<0.0001$).¹⁶ Additionally, 78% of these students showed a positive change in resiliency, which was measured through Resiliency Scales for Children and Adolescents (RSCA).¹⁶

Acceptability of Violence

Among students with a mean age of 13.59, those who received the SEL intervention demonstrated greater critical thinking and awareness of the violence's impact on victims ($p=0.550$).¹⁴ Similarly, students aged 12 to 15 who received the intervention also showed significant improvements in aggressive normative beliefs ($p=0.06$).¹³

			violence, was conducted in the school context. As an SEL approach, the program aimed to develop students' capacities to well-adjust in school. Role-playing was heavily used during sessions, and the program satisfied all five CASEL core competencies.		violence, demonstrated greater critical thinking and awareness related to the impact of violence on victims and identified a great number of positive coping strategies for stress than students in control schools.
Green et al.	Prospective	Mean age of 12.3	SPARK Curricula is designed to reduce risk factors, build resiliency, promote emotional well-being, and facilitate school success in elementary, middle, and high school students, further satisfying all five core competencies of CASEL. The program was conducted over two semesters (Spring 2018-2019 and Fall 2019-2020), with 12 sessions each.	School-based	Results revealed that students who received the curriculum showed significant improvements in knowledge of curriculum content and principles, communication, decision-making, problem-solving skills, emotional regulation, and resilience compared to students in the comparison condition.
Sousa et al. ²⁵	Prospective	Mean age of 12.96	The program was sourced from the PAUMS (Positive Attitude Upper Middle School Program) SEL program, which satisfied all five core competencies of CASEL. It is implemented during the first semester of the school year, with 13 weekly sessions.	Classroom-based	Analyses showed positive intervention results in self- and teacher-reported social withdrawal and social anxiety. Regarding school climate, intervention group students with more positive teacher-student relationships benefitted more from program participation in social anxiety.

DISCUSSION

Adolescence is a developmental phase marked by physical, emotional, and social changes that increase vulnerability to mental health risks.¹⁷ This bolsters the need for appropriate social and emotional learning (SEL) programs for higher-grade adolescents. Effective SEL interventions must consider various factors, including program quality, participant needs, teacher capabilities, school context, and organizational capacity.¹⁸ For instance, a transformative SEL framework may be necessary for immigrant students facing different stressors.¹⁹ In another example, adjustments are needed to address disparities in program completion across different classes.¹⁵

To maximize the effectiveness of SEL, programs led by teachers are cost-efficient and preferred by students.²⁰⁻²¹ Programs that address pre-existing classroom problems are also more successful.¹⁵ For example, one study suggests that graduates from SKY schools, whose programs integrate concrete breathing techniques into SEL lessons, have been shown to improve identity formation, planning, concentration, and aggressive

normative beliefs.¹³ These findings suggest that modifying SEL programs can significantly boost their effectiveness.

Still, there is a lack of studies that show the effectiveness of the SEL program on social anxiety, though one study noted positive effects on social withdrawal.¹² Furthermore, animal-assisted SEL programs like the OverCome-AAI program have been shown to reduce suicidal behavior and non-suicidal self-harm among young people in residential care settings.²² These results indicate the benefits of adapting SEL to different contexts to maximize its impact. Likewise, universal SEL programs require a low level of investment, but it results in significantly greater health benefits, indicating cost-effectiveness.²³

Given the benefits of SEL lessons for higher-grade adolescents, strengthening legislative support is crucial. For instance, Washington State's House Bill 2239, though not yet passed, aims to provide SEL instructions and funding to school districts and prioritize marginalized communities in implementing SEL.²⁴

Legislative efforts like this bill will ensure that more students will be able to manage their emotions effectively, addressing the increasing concerns surrounding youth mental health.

CONCLUSION

Overall, implementing SEL programs for higher-grade adolescents offers diverse mental health benefits, including improved emotion regulation, reduced acceptance of violence, and increased happiness. However, further research should be done to maintain a broader range of literature reviews and explore additional outcomes. Further studies may investigate Positive Youth Development (PYD) interventions, which share similarities with SEL and have been proven effective in various aspects. It may also inspect those interventions' associations with academic improvement, biological factors, and suicide prevention. This research highlights the positive impact of SEL on higher-grade students' mental health and calls for widespread SEL implementation across school districts nationwide.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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ETHICAL CONSIDERATION AND INFORMED CONSENT

Not applicable.

AUTHORS CONTRIBUTIONS

Jinwoo Lee, Ji Won Yoo, participated in study designing, literature search, and data analysis. Jinwoo Lee participated in manuscript writing, and editing

REFERENCES

- [1] Wilson, S., & Dumornay, N. M. Rising Rates of Adolescent Depression in the United States: Challenges and Opportunities in the 2020s. *Journal of Adolescent Health*, 2022 Mar; 70(3), 354–355.
- [2] Centers for Disease Control and Prevention. Youth Risk Behavior Survey Data Summary & Trends Report: 2013–2023. U.S. Department of Health and Human Services; 2024.
- [3] Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, 2005 Jul; 62(6), 593–602.
- [4] Lin, J., & Guo, W. The Research on Risk Factors for Adolescents' Mental Health. *Behavioral Sciences*, 2024 Mar; 14(4), 263.
- [5] Lester, L., & Cross, D. The Relationship between School Climate and Mental and Emotional Wellbeing over the Transition from Primary to Secondary School. *Psychology of Well-Being*, 2015 Oct; 5(1):9.
- [6] Martinsone, B., Stokenberga, I., Damberg, I., Supe, I., Simões, C., Lebre, P., Canha, L., Santos, M., Santos, A. C., Fonseca, A. M., Santos, D., Gaspar de Matos, M., Conte, E., Agliati, A., Cavioni, V., Gandellini, S., Grazzani, I., Ornaghi, V., & Camilleri, L. Adolescent social emotional skills, resilience and behavioral problems during the COVID-19 pandemic: A longitudinal study in three European countries. *Frontiers in Psychiatry*, 2022 Aug1:13, 942692.
- [7] CASEL. (2020). CASEL'S SEL Framework. *CASEL*. <https://casel.org/casel-sel-framework-11-2020/?view=true>
- [8] Cipriano, C., Strambler, M. J., Naples, L. H., Ha, C., Kirk, M., Wood, M., Sehgal, K., Zieher, A. K., Eveleigh, A., McCarthy, M., Funaro, M., Ponnock, A., Chow, J. C., & Durlak, J. The state of evidence for social and emotional learning: A contemporary meta-analysis of universal school-based SEL interventions. *Child Development*, 2023 Sep-Oct; 94(5).
- [9] Elias, M. J. Social-emotional skills can boost Common Core implementation. *Kappanonline.org*. 2014, November 1.
- [10] Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. Promoting Positive Youth Development through School-Based Social and Emotional Learning Interventions: a Meta-Analysis of Follow-Up Effects. *Child Development*, 2017 Jul; 88(4), 1156–1171.
- [11] CASEL. (2022, April 22). 2022 SEL State Scorecard Scan - CASEL. <https://casel.org/2022-state-scan/?view=true>
- [12] Coelho, V. A., Marchante, M., & Sousa, V. "Positive Attitude": A multilevel model analysis of the effectiveness of a Social and Emotional Learning Program for Portuguese middle school students. *Journal of Adolescence*, 2015 Aug 43, 29–38.
- [13] Newman, R. I., Yim, O., & Stewart, M. Breathing life into social emotional learning programs: A Bio-Psycho-Social approach to risk reduction and positive youth development. *Journal of Adolescence*. 2024 Jul;96(5): 1065-1077
- [14] Crooks, C. V., Scott, K. L., Broll, R., Zwarych, S., Hughes, R., & Wolfe, D. A. Does an evidence-based healthy relationships program for 9th graders show similar effects for 7th and 8th graders? Results from 57 schools randomized to intervention. *Health Education Research*, 2015 Jun 30(3), 513–519.
- [15] Pollak, I., Katharina, Birchwood, J., Schrank, B., Kerstin Angelika Zechner, Wiesner, C., & Woodcock, K. Promoting Peer Connectedness Through Social-Emotional Learning: Evaluating the Intervention Effect Mechanisms and Implementation Factors of a Social-Emotional Learning Programme for 9 to 12-Year-Olds. *Journal of Youth and Adolescence*. 2024 Jan; 53(1):89-116.
- [16] Green, A. L., Ferrante, S., Boaz, T. L., Kutash, K., & Wheeldon-Reece, B. Social and emotional learning during early adolescence: Effectiveness of a classroom-based SEL program for middle school students. *Psychology in the Schools*, 2021 Jun 58(6).

- [17] World Health Organization. Mental health of adolescents. World Health Organization; World Health Organization. 2021 Nov 17.
- [18] Dowling, K., & Barry, M. M. Evaluating the Implementation Quality of a Social and Emotional Learning Program: A Mixed Methods Approach. *International Journal of Environmental Research and Public Health*, 2020 May 7; 17(9), 3249.
- [19] Stark, L., Robinson, M. V., Gillespie, A., Aldrich, J., Hassan, W., Wessells, M., Allaf, C., & Bennouna, C. Supporting mental health and psychosocial wellbeing through social and emotional learning: A participatory study of conflict-affected youth resettled to the U.S. *BMC Public Health*, 2021 Sep 6;21(1):1620
- [20] Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children. *Child Development*, 2017 Mar; 88(2):408-416.
- [21] Mackenzie, K., & Williams, C. Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. *BMJ Open*, 2018 Sep 8; 8(9):e022560.
- [22] Muela, A., Balluerka, N., Sansinenea, E., Machimbarrena, J. M., García-Ormaza, J., Ibarretxe, N., Eguren, A., & Baigorri, P. (2021). A Social-Emotional Learning Program for Suicide Prevention through Animal-Assisted Intervention. *Animals*, 2021 Nov 25; 11(12):3375.
- [23] Lee, Y. Y., Skeen, S., Melendez-Torres, G. J., Laurenzi, C. A., Ommeren, M. van, Fleischmann, A., Servili, C., Mihalopoulos, C., & Chisholm, D. (2023). School-based socio-emotional learning programs to prevent depression, anxiety and suicide among adolescents: a global cost-effectiveness analysis. *Epidemiology and Psychiatric Sciences*, 2023 Jul 12:32:e46.
- [24] Washington State Legislature. (2023). *Wa.gov*.
- [25] Sousa, V., Patrícia Ribeiro Silva, Ana Maria Romão, & Vítor Alexandre Coelho. Can an Universal School-Based Social Emotional Learning Program Reduce Adolescents' Social Withdrawal and Social Anxiety? *Journal of Youth and Adolescence*, 2023 Nov; 52(11):2404-241.