Evaluating the Effectiveness of Multidimensional Social-Emotional Learning (SEL) Programs in Reducing School Bullying: A Global Systematic Literature Review of Primary and Secondary Education Interventions (2014-2024)

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Keywords:

Social-Emotional Learning Bullying Students

ABSTRACT

Bullying remains a pervasive global issue with adverse effects on students' psychosocial development, school engagement, and mental health. Social-Emotional Learning (SEL) is increasingly recognized as a holistic, preventive framework that fosters competencies such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, which are directly linked to bullying prevention. This study employed a Systematic Literature Review (SLR) guided by PRISMA 2020 standards and the STAMP framework to ensure methodological rigor and transparency. Six electronic databases were systematically searched, yielding 2,527 records. After screening and quality appraisal, 21 peer-reviewed studies published between 2014 and 2024 were included for thematic synthesis. Findings show that SEL interventions effectively reduce bullying and enhance protective psychosocial factors. Long-term, curriculum-embedded, and multi-component programs demonstrated the most consistent outcomes, while short-term interventions yielded mixed effects. Selective interventions targeting high-risk students produced stronger reductions in victimization, whereas universal programs enhanced resilience and improved classroom climate. Participatory and digital delivery formats increased student engagement but showed variable behavioral impacts. Cultural adaptation emerged as a critical moderator, with contextually tailored programs demonstrating greater effectiveness. SEL represents a promising whole-school strategy for bullying prevention, but its success depends on sustained implementation, program comprehensiveness, and cultural alignment. Practical implications include embedding SEL into curricula and supplementing universal programs with targeted interventions for vulnerable groups. Research limitations include small samples, reliance on selfreports, and limited longitudinal designs. Future research should employ rigorous randomized controlled trials, standardized outcome measures, and cross-cultural approaches to strengthen evidence-based practice and inform global education policy.

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1. INTRODUCTION

School bullying is a pervasive global problem, with approximately one in three students reporting experiences of peer victimization in the past month [1]. Defined as intentional, repetitive, and harmful aggression, bullying contributes to heightened risks of anxiety, depression, suicidal ideation, and engagement in risky behaviors, while also undermining academic performance and school engagement [2]-[3]. Its impact extends beyond victims to perpetrators and bystanders, negatively affecting psychosocial development and school climate. Addressing this multidimensional issue requires comprehensive, theory-driven interventions beyond fragmented or one-dimensional approaches.

Bullying manifests in various forms, including physical, verbal, relational, sexual, and cyber aggression [1, 2, 4, 5]. These behaviors are shaped by ecological factors such as peer dynamics, teacher involvement, family monitoring, and overall school climate [6]-[7]. Consequently, the ecological systems theory offers a valuable framework for understanding how individual, relational, and contextual factors interact to exacerbate or mitigate bullying. Within this framework, Social-Emotional Learning (SEL) is increasingly recognized as a promising preventive approach that fosters intrapersonal and interpersonal competencies—such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making—that are directly linked to mechanisms underlying bullying behaviors [8]-[9].

Over the past two decades, empirical research and program evaluations have demonstrated the potential of SEL-based interventions to reduce bullying-related outcomes, including aggression, victimization, and social exclusion [10, 11, 12]. SEL interventions have also improved empathy, prosocial behaviors, and classroom climate, indirectly contributing to bullying prevention [13]-[14]. However, while individual studies and several meta-analyses have assessed the broader benefits of SEL on academic and social outcomes [15]-[16], the specific impact of SEL programs on school bullying remains insufficiently synthesized. Existing reviews often lack a targeted focus on bullying, fail to account for variations across educational levels, or do not cover the most recent decade of research.

This gap highlights the need for a systematic review that critically evaluates the effectiveness of SEL programs in addressing school bullying. By systematically synthesizing evidence from studies conducted between 2014 and 2024, this review aims to clarify how SEL-based interventions reduce bullying in primary and secondary school settings. Specifically, this study addresses three research questions: (1) To what extent are SEL programs effective in preventing or reducing bullying behaviors in schools? (2) What program characteristics (e.g., duration, delivery format, educational level) moderate their effectiveness? (3) What methodological limitations in the existing literature should guide future research? By answering these questions, the review seeks to advance theoretical understanding, inform evidence-based educational policy, and guide the design of effective SEL interventions for bullying prevention worldwide.

2. METHOD

This study employed a Systematic Literature Review (SLR) to synthesize evidence on the effectiveness of Social-Emotional Learning (SEL) programs in addressing school bullying. The review followed the PRISMA 2020 guidelines to ensure transparency and rigor in reporting[17]. It integrated the Standardized Sampling for Systematic Literature Reviews (STAMP) method to enhance reproducibility and reliability in article selection and appraisal [18]. PRISMA guided the overall reporting structure and flow of study selection, while

STAMP, through its score-based criteria, was applied during screening and quality assessment. This dual approach maintained transparency in reporting and methodological rigor in study appraisal.

2.1 Search Strategy

We systematically searched Scopus, ScienceDirect, APA PsycNet, PubMed Central, Sage Journals, and Google Scholar. The searches were conducted between January and March 2024 (not beyond the study timeframe) to ensure the most up-to-date research was included. Only peer-reviewed empirical articles published between 2014 and 2024 in English were included. The PIO (Population, Intervention, Outcome) framework was applied to structure the search. Synonyms and Boolean operators were adapted for each database to maximize coverage. For example:

Table 1. Main conceptual search terms based on the PIO strategy

lai	ole 1. Main conceptual	searc	in terms t	Jaseu c	ni tile Più strate	gy
PIO	Population (1.1)		Popula		Intervention	Outcome
		(1.2)		(2)	(3)	
Key Concepts	School		Age	9	SEL	Less Bullying
	Student OR "K12"	OR	child*	OR	("psychologic	bullying AND
	"elementary school"	OR	teen*	OR	al	(less OR
	"primary school"	OR	youth	OR	intervention"	prevention
	"middle school"	OR	young	OR	OR	OR reduct*
	"secondary school"	OR	adolesce	en*	intervention)	OR decrease
	"junior second	lary			AND ("Social	OR decline)
	school" OR "junior l	nigh			Emotional	
	school" OR "senior h	nigh			Learning" OR	
	school" OR "high sch	ool"			SEL)	
	OR "vocational sch	ool"				
	OR "boarding school"	OR				
	"public school"	OR				
	private school"					
Search	Scopus: TITLE-ABS-K	EY (1	1) OR TI	TLE-A	BS-KEY (1.2) AN	ID TITLE-ABS-
	KEY (2) AND TITLE-A	BS-K	EY (3)			
	Science Direct: (1.2) A	ND ((2) AND (3	3)		
	APA PsycNet: Any Fiel	d: (1	.1) OR An	y Field	: (1.2) AND Any	Field: (2) <i>AND</i>
	Any Field: (3)					
	PUBMED: (1.1)(tiab)	OR (1	l.2)(tiab)	AND (2	2)(tiab) AND (3)	(tiab)
	Sage Journal: (Abstra	ct: 1.	1) OR (A	bstract	: 1.2) AND (Ab	stract: 2) AND
	(Abstract: 3					
	Google Scholar: (1.1)	OR (1	1.2) AND ((2) AN	D (3)	

Search strings were piloted and refined to balance sensitivity (comprehensive coverage) and specificity (relevance to research questions). Truncations (*) and Boolean operators (AND/OR) were consistently applied across databases. A detailed record of search strings is available upon request.

2.2. Eligibility Criteria

Studies were eligible if they: (a) examined primary or secondary school students in formal education, (b) evaluated SEL-based interventions (standalone or integrated), and (c)

reported bullying-related outcomes (e.g., perpetration, victimization, school climate). Exclusion criteria included: (a) studies focusing exclusively on preschool or higher education populations, (b) interventions unrelated to SEL, (c) studies without bullying-related outcomes, (d) publications outside 2014–2024, (e) grey literature, non-peer-reviewed articles, or non-English studies. Cyberbullying-only studies were excluded unless SEL outcomes were explicitly assessed, to maintain focus on whole-school SEL approaches.

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Table 2. Review of	1116cfinnc	วทด	incliici	กท วทส	excllicion	criferia
I able 2. Review e	ucsuons	anu	miciusi	on and	CACIUSIOII	crittia

Review	How does SEL (intervention) addre	ess primary and secondary age students
question	(population) in reducing bullying (outcome)?
	Inclusion criteria	Exclusion criteria
Population	Primary and secondary school-	Kindergarten students, students not
	age students attending formal	attending formal school, adults and
	schooling	university students
Intervention	SEL-based or integrated with SEL	Interventions that do not involve SEL
Results	About reducing bullying	Not related to reducing bullying

2.3. Study Selection

The initial search yielded 2,527 records. After removal of duplicates and grey literature, 728 articles remained. Titles and abstracts were screened independently by two reviewers. Full texts of 36 potentially relevant studies were assessed against eligibility criteria. Disagreements were resolved through discussion and, when necessary, consultation with a third reviewer. Ultimately, 21 studies met the inclusion criteria. A total of 14 articles were analyzed as the main data [7, 12, 14, 19-29, 32], while five conceptual articles were used to support the discussion of results[5, 9, 29, 30, 31]. The PRISMA flow diagram (Figure 1) details the selection process.

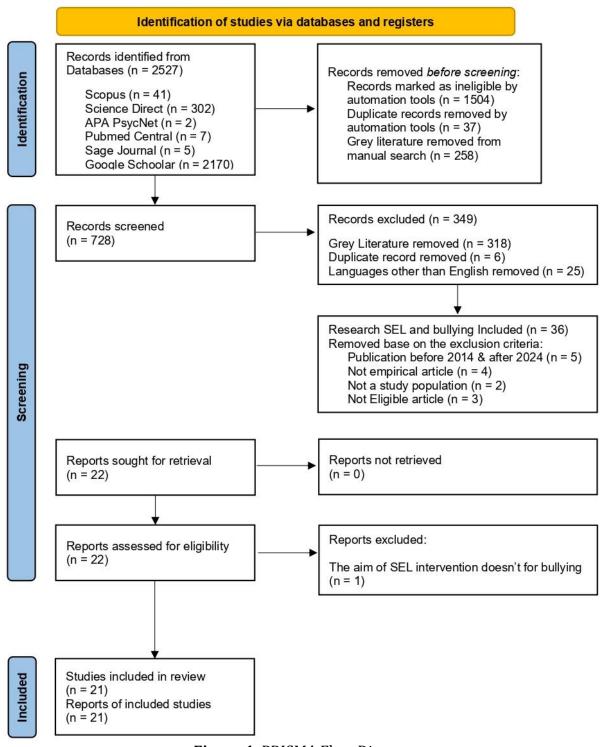


Figure 1. PRISMA Flow Diagram

2.4. Data Extraction

A standardized data extraction form was developed, including fields for author, year, country, study design, sample characteristics, intervention details (type, duration, delivery format), theoretical framework, outcome measures, and key findings. Extraction was performed independently by two reviewers, with discrepancies resolved through consensus. Data were organized in tabular and narrative formats.

2.5. Quality Appraisal

Quality assessment combined PRISMA reporting standards with the STAMP framework. Articles were evaluated on methodological clarity, appropriateness of design, intervention fidelity, measurement of bullying outcomes, and theoretical alignment with SEL. Each criterion was scored (0–2), yielding a maximum score of 16 at the abstract screening stage and 20 at the full-text stage. Inter-rater reliability was calculated (Cohen's κ = 0.82), indicating strong reviewer agreement. Only studies rated as moderate to high quality were retained for synthesis.

2.6. Data Synthesis

Findings were synthesized using a narrative thematic synthesis approach. Studies were grouped by school level, type of SEL intervention, and outcome category (e.g., bullying perpetration, victimization, school climate). Effectiveness was categorized as effective, moderately effective, or ineffective based on consistency and strength of reported outcomes. Patterns of moderating factors (e.g., program duration, cultural context, implementation fidelity) were identified to explain variations across studies. Potential biases—including publication bias, selection bias, and reviewer bias—were acknowledged and mitigated by: (a) including multiple databases, (b) employing dual independent reviewers, and (c) transparently documenting reasons for exclusion.

3. RESULTS AND DISCUSSION

3.1. Study Characteristics

A total of 21 studies published between 2014 and 2024 were included. The majority were conducted in the United States (n=15), with the remainder in Europe (the Netherlands), Asia (China, Iran, Turkey), and Canada. This geographic diversity highlights that the effectiveness of SEL is closely tied to socio-cultural contexts. For example, SEL proved more effective in highly competitive educational settings when combined with strategies to enhance classroom climate [12, 21]. In contrast, in Asian contexts, where collective harmony is emphasized, group-based approaches such as counseling [25] or peace education [26] were particularly effective.

3.2. Level of Education in the Included Study

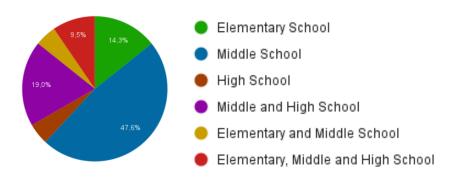


Figure 2. Distribution of Educational Level in the SEL Study

The graphic above illustrates that studies applying the SEL approach in schools primarily targeted middle schools (47.6%), followed by elementary schools (14.3%) and high schools (4.8%). Following this were integrated interventions in elementary and middle

schools (4.8%), middle and high schools (19%), and combined elementary, middle, and high schools (9.5%). Early adolescence is a crucial period of emotional, social, and academic transition, which explains the high rate of interventions among middle school pupils. Students become more socially active and sensitive to interpersonal conflicts and peer group pressure, which can lead to bullying. Using the SEL approach, this is an excellent opportunity to teach social-emotional skills, including empathy, emotion management, and ethical decision-making.

The review also demonstrates that SEL programs can be effective in elementary, secondary, and child-adolescent schools. This aligns with competency-based SEL, which can be tailored to learners' cognitive and social development. This study's four SEL competencies are cross-age but must be contextualised.

3.3. Thematic Synthesis of SEL Program Effectiveness

Rather than describing each study individually, findings were organized into key thematic domains:

- 1. Program Duration and Intensity: Findings indicate that long-term, curriculum-based interventions such as **Second Step** and **Skills4Life** demonstrated more consistent reductions in bullying compared to short-term or one-off interventions like **ACT Out!**. This aligns with meta-analyses by Durlak et al. [15] and Taylor et al. [16] emphasized program duration and sustained implementation as critical predictors of behavioral change. These results confirm that meaningful changes in social-emotional and behavioral outcomes require repetition and reinforcement over time rather than brief exposure.
- 2. Target Population: Selective programs targeting high-risk groups (e.g., students from low-income families or those with disabilities) yielded more substantial effects, such as decreased victimization and improved coping skills [11, 22, 24, 27]. In contrast, universal programs like **Sources of Strength** were more effective in strengthening protective factors such as resilience and classroom climate, though their direct impact on bullying was weaker [14].
- 3. Delivery Format: Regarding delivery formats, participatory methods (e.g., role-play, psychodrama, digital platforms) increased student engagement but produced mixed results in reducing bullying. For example, the digital intervention **BullyDown** enhanced social-emotional awareness but lacked strong evidence of behavioral change [28]. These findings suggest that technology-based approaches can complement but not replace comprehensive school-based curricula.
- 4. Contextual Moderators: Family support, peer dynamics, and school climate significantly influenced program effectiveness. For instance, parental monitoring moderated outcomes in *Second Step*, while negative peer cultures undermined gains.
- 5. SEL Competencies Targeted: Programs addressing multiple CASEL competencies—self-awareness, self-management, relationship skills, social awareness, and responsible decision-making—were generally more effective than those with a narrow focus. For instance, **Skills4Life** reduced bullying by integrating emotion regulation, social skills, and decision-making skills ([12, 27]. However, self-awareness emerged as a complex construct: while some programs enhanced recognition of victimization, this did not

necessarily reduce actual bullying exposure [9]. This indicates that self-awareness must be complemented by coping and regulation strategies to achieve meaningful behavioral outcomes.

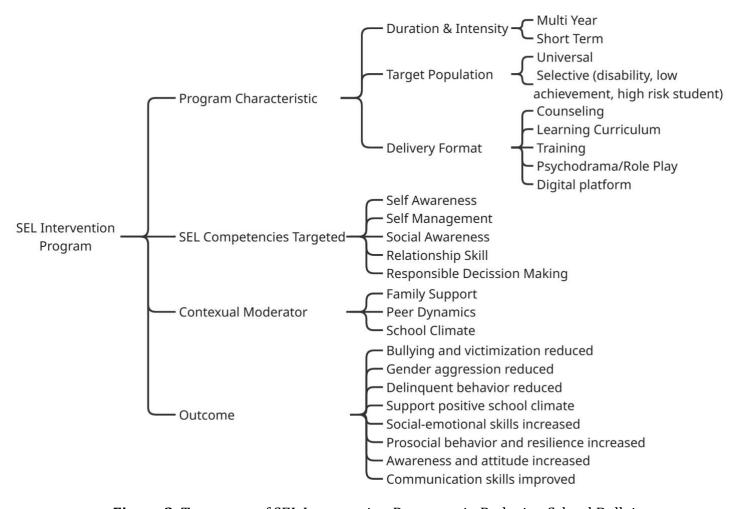


Figure 3. Taxonomy of SEL Intervention Programs in Reducing School Bullying

 Table 3. SEL-Based Intervention Program in Reducing Bullying Behavior

No Year Author Program	ACT Out! 1 2021 Agley, Social et.al [19] Issue Theater		Espelage, D. L.; Row, S.; Second 2 2015 Polanin, J. R.; Step Brown, E. [21]	Espelage, D. L.; Row, S.; 2015 Polanin, J. R.; Brown, E. [21] Espelage, 2015 D. L. et al. [20]	Espelage, D. L.; Row, S.; 2015 Polanin, J. R.; Brown, E. [21] Espelage, 2015 D. L. et al. [20] Espelage, A.; Polanin, J. [22]
ram Duration	out! 1 meeting		3 years	3 years	3 years 3 years
School Level I	Elementary, Middle, F High School	Middle F School		Middle F School	
Type of Intervention	Preventive	Preventive		preventive	preventive
Form of Intervention	Psychodrama	Learning curriculum		Learning Curriculum	Learning Curriculum Learning Curriculum
Social Emotional	Social awareness, emotion regulation, relationship skills, and responsible decision- making	Social skills, empathy, emotion regulation, problem	solving, school connectedness	solving, school connectedness Empathy, problem solving	solving, school connectedness Empathy, problem solving Academic and social success (empathy, emotional regulation, communication and problem-solving skills)
Results	Inconsistently reducing bullying	Does not reduce bullying but reduces sexual/	gender-based violence	gender-based violence Reduced delinquency associated with decreased forms of bullying and gender aggression	ly y
Country	Sn	SU		SU	US
Effectiveness	×	•		•	

No	Year	Author	Program	Duration	School Level	Type of Intervention	Form of Intervention	Social Emotional Component	Results	Country	Effectiveness
6	2017	Espelage, D. L.; Ryzin, M. J. Van; violence, M. K. Holt [23]	Second Step		Middle And High School	Preventive	Learning Curriculum	Self- management, self- awareness & emotion regulation, relationship skills & social awareness	Effective for students with low-income family backgrounds and victims of bullying. Less effective with students with deviant friendships	S	•
7	2016	Fekkes, M, et al [12]	Skills4Life	2 years	Middle School	Preventive	Learning Curriculum	Self- awareness, social awareness, self-control, social relationships, decision- making skills and stress management	Significantly reduced bullying behavior, decreased victimization, and more effective suicide in students with low Education levels.	Netherlands	•
æ	2024	Forber- Pratt, et al [24]	Motivational Interview: Piece Over Drama	9 weeks	Middle School	selective intervention	Counseling	Social conflict management and student leadership through self- awareness and self- recovery	Leadership strategies and reducing involvement in peer and teacher interpersonal conflicts.	Sn	<
9	2024	Qiao, et al [25]	Cooling Conflict	9 meetings	Middle School	Preventive	psychodrama	SEL Competency	Bullying negatively correlates with increased student SEL	China	•
No	Year	Author	Program	Duration	School Level	Type of Intervention	Form of Intervention	Social Emotional Component	Results Effective for	Country	ᇂརᄼᄱᇞᄼᄊᅕᄊᄥᇤᄱᅭ
								Salf	4		

No Year Author Program Duration School Level Intervention of Enough Component Social Enough Component Comp												
Peace 2023 Rezaei, et Education 12 Results Education 12 Results Education 12 Residence 12 Results Education 12 Residence Intervention Intervention Education Intervention Education Intervention Education Intervention Education Intervention	_	Sn	oted nts and potential potential ge attit imp -emotion	SEL Competency	ext	Preventive	Middle School	12 months	BullyDown	Ybarra, et al [28]	2016	14
Peace Peac	•	US	bu bu	SEL Competency	Learning curriculum	Preventive	Elementary School	15 meetings	Sources of Strength	Valido, et al [14]	2023	13
Year Author Program Duration School Level Type of Level Form of Intervention Form of Emotional Intervention Social Emotional Intervention Results Country 2023 Rezaei, et Education SEL al [26] and SEL and SEL al [26] and SEL al [27] sessions High School Preventive Training SEL Competency Competency Reducing ongoing bullying Interaction but struggles with emotional situations, feels school 2024 Sande, et. al [27] Skills4Life 3 years School/Previous intervention Selective Curriculum Learning Competency Competency Competency Presponsible for responsible school Netherlands school	•	US	iting iship il il outco m behav al behav al behav	Social awareness, self- management, and responsible decision making	Learning curriculum	Preventive	Elementary, Middle School	28 sessions	Second Step	۷, et	2017	12
Year Author Program Duration School Level Type of Intervention Form of Intervention Emotional Component Results Country 2023 Rezaei, et al [26] and SEL and SEL and SEL Training High School Preventive Training SEL Competency Reducing ongoing bullying Iran		Netherlands	SC S	SEL Competency	Learning Curriculum	Selective	Middle School/Pre- Vocational	3 years	Skills4Life	Sande, et. al [27]	2024	11
Year Author Program Duration School Type of Form of Emotional Results Country Component	<	Iran	0.0	SEL Competency	Training	Preventive	High School	12 sessions	pi a e	et	2023	10
	Effectiveness	Country	Results	Social Emotional Component	Form of Intervention	Type of Intervention	School Level	Duration	Program	Author	Year	No

3.4. Quality of Evidence and Risk of Bias

Study quality ranged from moderate to high using PRISMA and STAMP-based appraisals. However, methodological limitations included small sample sizes, lack of long-term follow-up, and inconsistent outcome measures. Risk of bias arose from small sample sizes, self-reported measures, and variability in implementation fidelity. These methodological limitations temper the strength of conclusions.

3.5. Comparative Effectiveness

The review confirmed that **Second Step** is one of the most extensively studied programs, consistently reducing aggression and gender-based violence, although its impact on victimization remained inconsistent [21]-[22]. These findings support Nickerson et al. [10] showed that SEL improved classroom climate and empathy but did not always directly suppress aggressive behaviors.

Cultural adaptation also emerged as a critical factor. Programs such as *Peace Education* and *SEL Training* in Iran and *Forum Theatre* in China demonstrated strong results when SEL values were aligned with local cultural norms. This resonates with Bronfenbrenner's ecological theory [6], which emphasizes that the effectiveness of interventions depends on the dynamic interactions between individuals, families, schools, and cultural systems.

Table 4. Comparative Table of Findings

	Table 4. Comparat	ive Table of Findings	
Aspect	Findings from Current	Previous Research	Comparative
	Review (2014-2024)		Analysis
Program	Long-term, curriculum-	Durlak et al. [15];	Consistent:
Duration &	based programs (Second	Taylor et al. [16]: Long-	sustained
Intensity	Step, Skills4Life)	term interventions	exposure is
	consistently effective;	yield stronger	necessary for
	short-term	outcomes.	durable change.
	interventions (ACT Out!)		
	less reliable.		
Target	Selective programs for	Espelage et al. [32]:	Aligned: tailoring
Population	at-risk students more	Greater effectiveness	to population
	effective in reducing	among high-risk	needs enhances
	victimization.	groups.	outcomes.
Format &	Participatory methods	Smith & Low [13]:	Supportive:
Method	(role-play,	Active participation	interactive
	psychodrama, digital)	supports SEL	formats require
	increased engagement	internalization.	integration with
	but showed mixed		broader curricula.
	effects on bullying.		
SEL	Multi-component	Nickerson et al. [10]:	Consistent:
Competencies	interventions more	Comprehensive SEL	holistic
	effective than single-	enhances empathy and	approaches are
	focus programs.	classroom climate.	stronger.
Self-Awareness	Sometimes heightened	Fredrick & Jenkins [9]:	Aligned: requires
	recognition of	Self-awareness can	integration with
	victimization without	increase sensitivity to	coping and
	reducing bullying.	victimization.	regulation skills.
Cultural	Adaptation to local	Bronfenbrenner [6]:	Supportive: SEL
Context	values (Iran, China)	Cultural systems	must be

Aspect	Findings from Current Review (2014–2024)	Previous Research	Comparative Analysis
	strengthened effectiveness.	moderate intervention outcomes.	contextually tailored.
Overall Effectiveness			promising but not a universal

3.6. Discussion

This systematic review provides compelling evidence that Social-Emotional Learning (SEL) interventions hold considerable promise in mitigating school bullying, fostering prosocial skills, and enhancing overall school climate. Nevertheless, the magnitude and consistency of these effects are contingent upon program design, implementation fidelity, cultural alignment, and population characteristics.

Program duration and intensity emerged as decisive factors. Comprehensive, long-term, curriculum-based programs such as *Second Step* and *Skills4Life* consistently demonstrated reductions in bullying behaviors. In contrast, short-term or single-session interventions (e.g., *ACT Out!*) yielded less reliable outcomes. These findings align with prior meta-analyses [15]-[16], emphasizing sustained exposure and repeated reinforcement as prerequisites for durable behavioral change. Therefore, Embedding SEL into the school curriculum appears essential to achieve long-term impact.

Target populations further shaped intervention outcomes. Selective programs addressing high-risk students—those with disabilities, low academic achievement, or disadvantaged backgrounds—produced more pronounced reductions in victimization and improved coping mechanisms [22, 24, 27, 32]. Universal programs, by contrast, were more effective in enhancing general protective factors such as resilience, emotional well-being, and positive classroom climate. However, their direct impact on bullying was limited [14]. These complementary effects suggest that universal SEL initiatives should be combined with selective interventions to ensure inclusivity and equity in addressing bullying.

Delivery formats also influenced outcomes. Interactive and participatory methods such as psychodrama, role-play, and digital interventions promoted student engagement, yet their effectiveness in reducing bullying was inconsistent. For instance, *BullyDown* [28] successfully improved students' social-emotional competencies but offered limited evidence of behavioral change. These results echo Smith and Low [13], who noted that active engagement enhances learning but must be embedded in structured, curriculum-based SEL to yield measurable behavioral effects.

Regarding SEL competencies, programs integrating multiple CASEL domains were notably more effective than those focusing narrowly on a single skill. Competencies such as self-management, relationship skills, and responsible decision-making played a central role in reducing aggression and fostering prosocial behavior. By contrast, self-awareness demonstrated a paradoxical effect, with some studies reporting that enhanced self-awareness heightened recognition of victimization without reducing bullying incidents [9]. These findings underscore the importance of pairing self-awareness with coping and emotion regulation strategies to translate awareness into protective behavior.

Compared with prior research, the review reinforces established evidence while contributing novel insights. Second Step remains the most rigorously evaluated program, consistently associated with reductions in aggression and gender-based violence, although results for victimization outcomes were mixed [21]-[22]. Similarly, Skills4Life demonstrated robust effectiveness among low-achieving students, supporting claims that SEL interventions are

particularly valuable in disadvantaged contexts [12]. At the same time, inconsistencies regarding self-awareness and short-term interventions highlight the need for nuanced program design and contextual adaptation.

Cultural and contextual factors proved critical moderators of effectiveness. Programs incorporating local values—such as *Peace Education and SEL Training* in Iran or *Forum Theatre* in China—achieved greater success than those implemented without cultural adaptation. This finding strongly resonates with Bronfenbrenner's ecological framework [6], which emphasizes the interplay of individual, familial, school, and cultural systems in shaping developmental outcomes. Consequently, SEL interventions must be culturally responsive, recognizing that what works in one educational setting may not be equally effective in another.

Despite promising outcomes, methodological shortcomings remain evident across studies. Small sample sizes, reliance on self-report measures, heterogeneous outcome indicators, and limited long-term follow-up were recurring limitations. These weaknesses restrict the generalizability of current findings and call for more rigorous, longitudinal, and cross-cultural evaluations in future research.

This review demonstrates that SEL interventions effectively reduce bullying and foster protective psychosocial factors, yet they are not universally applicable solutions. Their impact depends on sustained implementation, comprehensive program design, population targeting, and cultural alignment.

The findings affirm the potential of SEL as a cornerstone strategy for bullying prevention while highlighting the necessity of adaptation and contextualization. For policymakers and practitioners, the evidence underscores the importance of long-term, multi-component SEL programs embedded within school curricula and supplemented with selective interventions for high-risk groups. Future research should prioritize methodological rigor, standardized outcome measures, and culturally grounded program development to advance theoretical understanding and practical application.

4. CONCLUSION

This systematic review demonstrates that Social-Emotional Learning (SEL) interventions, particularly when multi-component, curriculum-embedded, and culturally contextualized, hold strong potential for reducing bullying and promoting prosocial behaviors in school settings. For practice, the findings highlight the need for educators and policymakers to adopt long-term, whole-school SEL strategies supplemented by targeted support for at-risk students, while ensuring alignment with local cultural values and ecological factors. However, the evidence base remains constrained by methodological limitations, including small and heterogeneous samples, reliance on self-reported outcomes, and limited longitudinal follow-up, which reduce generalizability. Future research should employ more rigorous randomized controlled trials, adopt standardized bullying and SEL outcomes measures, and investigate mediating and moderating mechanisms across diverse cultural and educational contexts to strengthen theoretical understanding and practical implementation.

ACKNOWLEDGEMENTS

The researcher would like to thank the Social and Humaniora Faculty of UM Bandung for supporting the implementation of this research.

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