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Trauma-Informed Teaching in Educational Settings: A Systematic Literature Review of Teacher Practices Promoting Students' Emotional Resilience and Academic Success

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Systematic Review

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Abstract

Background

Childhood trauma is widespread, and schools increasingly serve as key settings for psychosocial support despite limited teacher preparation. Trauma-informed teaching has emerged as a comprehensive framework linking teacher competence, classroom practices, and student outcomes.

Methods

A PRISMA 2020-compliant systematic literature review was conducted across six databases for English-language studies (2015–2026). Study quality was appraised using the Mixed Methods Appraisal Tool, and findings were synthesized thematically and narratively.

Results

Forty-eight studies met the inclusion criteria, generating six themes: trauma literacy and self-efficacy, safe classroom environments, teacher–student relationships, teacher well-being, coaching and whole-school support, and equity. Trauma-informed practices integrated with social–emotional learning and sustained coaching improved student emotional resilience (g = 0.57), teacher–student relationships, and academic achievement (Hedges' g ≈ 0.27).

Conclusions

The Trauma-Informed Educational Support Framework integrates teacher competence, psychological safety, and social–emotional support to enhance student well-being and academic success while informing educational policy and practice.

1. Introduction

Exposure to trauma in early life as a consequence is one major health issue of this new century. The impact of such events is felt in educational, psychological, and developmental domains. A meta-analysis consisting of 206 studies from 22 countries, including 546, 458 adults, stated pooled prevalence of 16.1% for four or more ACEs which was disproportionately higher among individuals from low-income families (40.5%), without homes (59.7%) and people of racial/ethnic groups other than the majority, mainly those people identifying as Indigenous/Native American (40.8%) compared to the majority of population who identify as White (12.1%) (Madigan et al., 2023). Among school children, over the course of 25 years, a literature review of 96 studies found that approximately two-thirds of children experience significant adverse events no matter where they live (Carlson et al. 2019). According to U.S. surveillance data, about three-quarters of high school students had at least one ACE, among them 7.8% had four or more (Anderson et al. 2022), and the new ACE measurement that includes bullying and natural disasters is able to capture even more cases. For adults, the effect of these measures is enormous with a psychological distress that was eight times higher in the case of someone who had more than four ACEs (Sasaki et al. 2024). All these data prove that trauma is not a one-off event and neither it is specific to certain social or economic strata, it just is an ordinary part of what most modern day childhoods will involve and that will be a need for collaborative efforts by various education stakeholders.

A student's ability to attend, encode information, retain, etc. academic material has suffered severely if one has been a victim of traumatic events.

Teachers often express with how much trauma they have to handle on a daily basis, one urban high school teacher said she has dealt with 4 or 5 suicides, confiscation of drugs by students, gangs breaking up fights in school, in her four years of working at that school (Gherardi et al., 2021).

Teaching in a trauma-informed manner, therefore, is not going to a side dish of the normal pedagogical process. Instead, the whole understanding of the causes of behavior, the design of the surrounding, the keeping up of interpersonal contact will be altered from the root by the educators.

The way policies have dealt with these new developments varied as a consequence of different degrees of motivation. In the United States, a multitude of bills at the Federal level have been coming to light which explicitly mention trauma-informed practice. About 49 bills mentioning such practice were passed in 1973 through 2015, more than half of them in the year 2015 (Maynard et al., 2019). At least 17 US states, according to Maynard et al., (2019) and Overstreet & Chafouleas, (2016), had integrated trauma-informed practices at the school and even State level by 2016 respectively. At the global level similar initiatives are also being taken such as teachers of schools becoming mental health promoters (Kutcher & Wei, 2020).

But, there are limitations in the amount of evidence that has been accumulated. Maynard et al., (2019) in a study that reviewed the impacts of trauma-informed schools, mentioned that even with an extensive search through nine different databanks and other resources of research, no paper was considered suitable that met all the rigorous requirements set out in the review, i.e., a fully randomized or quasi-experimental study. The null result has frequently been cited as an illustration of how practice comes first before thorough examination.

The research conversation surrounding SEL has evolved to a more mature stage. A series of meta-analyses in recent times, besides showing how universal school-based SEL boosts students' social, emotional skills considerably (Hedges' g = 0.57) also has shown the positive social behaviors and conduct problem decrease among students, emotional distress, and academic achievement gains (g = 0.27, equal to an 11-percentile-point jump in performance) (Durlak et al., 2011). Follow-up meta-analyses have confirmed these advantages remain years after the intervention and are not dependent on factors like students' ethnicity, socioeconomic status, school location (Taylor et al., 2017). Also, latest meta-analyses focusing on grade-specific effects reveal students of all grades from 1 to 12 engaging in universal school-based SEL programs are making gains in academics (Ha et al., 2025, g = 0.101), while a 2023 overview study of 424 papers across 53 countries with a student sample size of 575, 361 has revealed that the outcomes have been uniform at skill level, attitude, behavior, school climate, peer relationship, and academic dimensions (Cipriano et al., 2023).

Even after such consistent findings, several challenges in the field still limit researchers and practitioners. Among them, first, research into TITs has been criticized by scholars as using concepts of strong theoretical bases (e.g., 4Rs framework, six key principles ofSAMHSA) without adequately verifying them in classroom settings, a review paper from a while back states that "trauma-informed frameworks have principles but do not translate them into practice in the non-western contexts of disasters" (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.).

Second, the research on teachers' implementation of trauma-informed strategies in poorly resourced settings has been questioned, as it leads to an emotional burnout, depersonalization which can undermine sustainability (O'Connor, 2025). Third, cross-cultural evidence beyondAnglo-Saxon contexts is still very limited even though new studies are emerging to cover up the gap (Lisio et al., 2025). Fourth, the field has largely overlooked the issues of racial/cultural trauma, equity, and culturally sustaining praxis, although innovative models such as the "Critical School Mental Health Praxis" framework (Ulie-Wells et al., 2020) and the "Culturally Responsive, Anti-Racist, and Equitable" framework (Knox & Sturdivant, 2026) have been addressing these gaps to an extent.

Another thing to worry about is the lack of evaluation from the teachers' and equity perspectives. Reviewing the interdisciplinary works, the authors have stated that teachers are "largely overlooked" and "a dearth of research is available on trauma-informed teaching and teacher education that is fed back to those audiences" (Thomas et al., 2019). Therefore, the results of null findings in the Campbell review (Maynard et al., 2019) shall not be interpreted as proof for the ineffectiveness of the trauma-informed approach but rather as evidence for the lack of evaluations: the majority of trauma-informed schools have not been exposed to comparison designs, and the majority of highly rigorous studies were framed in a way not matching the trauma-informed school definition.

In light of these convergences, the review aims to address the lacunae. It identifies four research gaps in the paper. First, the authors combine the recent post-covid studies and the earlier landmark works to emphasize results from different places around

the world and from different cultures. Second, the focus is not only on teachers but also the students. They have also considered the effect of students' outcomes. Third, they have examined the role of implementation facilitators from the system level such as coaching, mentoring, and leadership. Fourth, they have discussed equity and inclusion in the context of trauma because trauma is unequally distributed and trauma-informed education needs structural reform with a cultural perspective that can be deliberately planned. The authors have proposed a **Trauma-Informed Educational Support Framework** framework which illustrates how teacher competence, trauma-informed practices, socio-emotional support, psychological safety, and student academic and wellbeing outcomes are interrelated at different levels. The teacher's well-being, coaching, consultation, leadership, and equity are considered as variables that moderate these relations between factors.

The article is organized in the following fashion. Initially, it provides a summary of the worldwide prevalence of childhood trauma and its impact on children through various means. Subsequently, it explores the difficulties faced by teachers and the growing use of trauma-informed education both from the point of view of education policies and actual implementations as well together with the simultaneous development of frameworks around the topics of school-based positive relationship programs, SEL, and the child's resiliency. Finally, it identifies the six guiding questions for the comprehensive research synthesis.

The paper is grounded in six questions that lead the review:

RQ1. In recent studies on educational trauma, how has trauma-informed teaching changed, what models are being followed now in research, and are there any differences from past models?

RQ2. Which trauma-informed teaching practices are most effective in strengthening students' emotional resilience and under which circumstances do they provide their best results?

RQ3. Besides students' cognitive skills and classroom attendance, through which mechanisms does trauma-informed teaching affect students?

RQ4. How do mental health, physical fatigue, burnout, emotional depletion from the compassion fatigue, and personal capacity, i.e., teacher well-being aspects, influence teachers' implementation of and adherence to trauma-informed teaching?

RQ5. What is the role of school psychologists, counselors, instructional coaches, and administrators in trauma-informed education implementation, and which types of consultation and coaching models have successfully worked?

RQ6. What kind of guidelines that reflect both empirical findings and research results can help educators, teachers, and other stakeholders involved in teaching to adopt the principles of trauma-informed teaching equitably and sustainably?

2. Literature Review

2.1 Theoretical Base

Teaching that is trauma-aware is not a program but a way of thinking (a *paradigm*).It is based on several theoretical lines of thought and the combination of these lines of thought is essential for a full understanding of and intervention in traumatic processes. We put together seven basic strands, looking for what is similar and what is different, as well as what each of them means for teachers in their work every day.

2.1.1 Trauma Theory and SAMHSA's Framework

Trauma theory has given us different approaches on what a traumatized person goes through in the mental health field. According to the Substance Abuse and Mental Health Services Administration (SAMHSA) "Concept of Trauma and Guidance for a Trauma-Informed Approach" of 2014, a trauma-informed organization is one that: (a) has a good understanding of the prevalence and impact of trauma, (b) has the knowledge, skills and willingness to identify and respond to the needs of persons affected, and (c) is willing to change the way things are done in order to accommodate the needs of persons having difficulty (the so-called "4Rs"). Six guiding principles are laid out by SAMHSA: a sense of safety, trustworthiness and transparency, peer support as well as collaboration and mutuality; empowerment through voice, choice, and self-determination; and recognition of

cultural, historical, and gender issues. These have been the major conceptual basis of trauma-informed schools globally, though some critiques of implementation have pointed out that the principles are sometimes not consistently followed in day-to-day classroom activities (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.; Thomas et al., 2019).

2.1.2 Social, Emotional Learning

The social-emotional learning (SEL) models outline five interrelated capabilities: knowing oneself and expressing that knowledge, being in control of emotions and behavior, recognizing and showing empathy toward others, building effective relationships, and making reasoned decisions that result in the fulfillment of one's responsibilities. Research has found that when schools offer the SEL programs on a universal basis, they make a major contribution to student development. A meta-analysis of school-based SEL studies done in 2011 which looked at about 213 studies with about 270, 034 K-12 students showed that those students made significant improvements in SEL skills, attitude, behavior and academic performance, with an overall 11 percent increase in achievement (Durlak et al., 2011). After six months to 18 years, the effects remain, whether or not students belong to a certain race, socio-economic group, or school environment (Taylor et al., 2017). A very influential 2023 meta-analysis of 424 studies in more than 50 countries with 575, 361 students and 252 individual interventions revealed statistically significant increases in all the studied factors (skills, attitude, behavior, school climate, relationships with peers, school functioning, and academic performance) depending on different conditions, characteristics of the program, context, and quality of the implementation (Cipriano et al., 2023). The specific grade level evidence shows that the universal SEL programs for students in grades 1, 12 result in an academic performance increase of $g = 0.101$, which is a very promising result, especially since the effect is seen in both literacy and mathematics (Ha et al., 2025).

2.1.3 Attachment Theory and the Teacher, Student Relationship

Attachment theory has been creatively applied to school settings, where teachers are attachment figures of the second generation who provide emotional security by offering both safety and comfort (Roorda et al., 2017, 2019; Spilt et al., 2011).

Meta-analysis studies confirm that friendly and non-confrontational teacher-student interactions give rise to a feeling of emotional safety which, in turn, allows students freedom to explore learning materials and participate actively in academic work (Roorda et al., 2017, 2019).

The role of such factors becomes evident for vulnerable groups of students: a recent PRISMA review of 45 articles (2018, 2022) found a strong correlation between supportive teacher-student relationships and increased motivation for academic work, improved grades, and less drop-out risk among students.

Spilt et al., (2011) highlight that, from an attachment standpoint, educators are not merely supportive, trauma-informed partners but the very key through which they help trauma survivors reestablish a sense of feeling safe and secure.

2.1.4 Ecological Systems Theory

Bronfenbrenner's ecological systems theory conceptualizes the child as a person situated within a series of nested environments: the immediate surroundings (home, school), the family-school relations, the wider community, the macro-level societal and cultural environment, and the time-based/historical component. Trauma-informed education considered through an ecological lens represents classroom-level intervention whose success is determined by family-school cooperation at mesosystem level, exosystem level resources (expertise, policies), and macrosystem level commitment to justice and inclusiveness.

Several implementation studies based on the Consolidated Framework for Implementation Research have highlighted the multiple levels that influence the sustainability of trauma-informed practice, with special attention paid to how frequent changes in the administrative staff, financial resources, and alignment of policies affect long-term effectiveness at exosystem level (Mullin et al., 2024; Nadeem & Ringle, 2016).

2.1.5 Resilience Theory

Resilience theory explains human ability to thrive in hardship as dynamic interdependent of risk factors and protective ones at individual, social, and community levels. Studies have revealed that school-based programs directed toward resilience (often measured by SEL, mindfulness, stress management, etc.) are most successful when involving high levels of interactive activities, delivery through various modes, a supportive milieu, and cognitive as well as emotional skill development (Fenwick-Smith et al., 2018).

Differential effect pattern has a key meaning in the area of resilience interventions; while the higher the adversity to which the students are exposed, the more is their benefit, on the contrary, students at lesser risk may not gain at all or even negatively (Rich et al., 2022; Ungar et al., 2014).

Mampane & Huddle, (2017) argue that although a recent summary has revealed that major effects are primarily noticed with those who are the most vulnerable to problems, there remain doubts among researchers as to whether a simple numerical measure of academic achievement is an accurate and comprehensive tool for evaluation of what a change brings about. Therefore, mixed-methods as well as qualitative designs based solely on the students' self-reports have been suggested as alternatives.

2.1.6 Self-Determination Theory

According to Self-Determination Theory (SDT), the three psychological needs–to feel that one has freedom of choice (Autonomy), to feel competent (Competence) and the need to have social connections or be accepted (Relatedness)--can only be met and thus lead to a higher level of engagement, motivation, and psychological health. In classroom settings, SDT predicts that teacher behaviors that support students (autonomy-supportive, providing structure, and involvement) promote students' engagement which in turn correlates to student achievement (Roorda et al., 2017).

SDT supports trauma-informed teaching in several ways: first, autonomy can be achieved by giving the students the chance to share their thinking and make decisions. Second, competence can be supported by having the learners do small tasks successfully with increasing difficulty. Third, relatedness, or being connected, can be enhanced by establishing warm, positive, and emotionally predictable classroom relationships.

2.1.7 Teacher Stress Models and School Climate Theory

Teacher burnout is a three-component construct covering: (i) emotional exhaustion, (ii) depersonalization, (iii) and a decreased sense of personal accomplishment.

Emotional exhaustion generally the first symptom is significantly linked with student misconduct (main predictor) and then secondarily role ambiguity and lack of administrative support.

The theory of school climate goes beyond the focus on the individual level aspect of burnout by expanding it to the organizational level and conceptualizing climate as the overall teachers' perception shared safety, relationship, leadership, instructional innovation.

Trauma-informed teaching in schools needs a friendly climate. However, in many cases, the implementation is done without the structural supports that keep teachers from getting burnout. The pattern is clearly described by researchers, showing how enthusiasm for trauma-informed teaching goes a step up compared to the available resources to implement it sustainably. (Morton & Berardi, 2017; Overstreet & Chafouleas, 2016).

2.2 Summary of Reviews and Recognition of Research Gaps

A cross-disciplinary research by Thomas et al. investigating trauma-informed approaches over two decades came to the conclusion that teachers in general and their needs have not been researched much in the field of trauma-informed education and that teacher-related findings are split into different areas of study, (Thomas et al., 2019).

Maynard et al.'s 2019 Campbell review revealed no significant results from intervention research, thus raising the bar for methodological rigor yet indicating in a clear way that development of trauma-informed methods has outpaced controlled evaluation.

The recent syntheses of thematic analyses of classroom-level trauma-informed interventions have highlighted common classroom strategies addressing: (1. somatic "bottom-up" capacities safety, self-regulation, sensory, relational/attachment needs), (2. psychological "top-down" capacities SEL, academic/learning/voice/empowerment/strengths/cultural needs of the student), (Norrish & Brunzell, 2023).

The Norrish and Brunzell study has demonstrated that the field has developed commonly understood classroom language but lack a unifying way of teaching, (Norrish & Brunzell, 2023).

Thomas et al.'s interdisciplinary review, (Thomas et al., 2019) and Maynard et al.'s Campbell review, (Maynard et al., 2019) both agree that education scholars have joined the conversation only recently and that they make up for a negligible share of trauma-informed academic writings, which have mainly been in psychology, social work, and public health. The lack of disciplinary collaboration has limited the development of integration models that cater to how teachers spend their workday, a need fulfilled by the current review and TIES Framework proposed.

2.3 The Present Review's Contribution

This review paper contributes to the literature in three ways. Primarily, it combines the trauma-informed approach with recent scholarship on SEL, attachment, and equity to present a single theoretical framework capable of explaining the effects of these approaches in a unitive way. Secondly, the discussion here places the factors relating to teachers (such as well-being, self-efficacy, compassion satisfaction/fatigue, work conditions) in the forefront that have not been sufficiently dealt with yet. Thirdly, an operationalization of **TIES Framework** is offered through which a step-by-step process or 'cascading effect' of teacher competence to trauma-informed practices, SEL support, psychological safety, emotional resilience, academic engagement, and academic success is illustrated as a moderating variable. The framework is in harmony with the objectives of the Special Issue, a call for papers focusing on social, emotional support and academic support, and its main purpose is to encourage researchers in the education field, teacher educators, and policy makers to develop and evaluate their programs in a more targeted way.

3. Methods

3.1 Review Design and Reporting Standard

The review was conducted in accordance with the PRISMA 2020 guidelines (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.), (Maynard et al., 2019). The protocol specified the research questions, eligibility criteria, search strategy, quality appraisal approach, and synthesis plan *a priori*. The PRISMA 2020 flow diagram records the identification, screening, eligibility, and inclusion stages, and a PRISMA 2020 Checklist is provided as supplementary material.

3.2 Information Sources and Search Strategy

Six databases were searched: Scopus, Web of Science, ERIC, PsycINFO, PubMed, and ScienceDirect. Targeted searches in Google Scholar were used to identify seminal earlier works and recently accepted articles. Table 1 reports the search strings, adapted for each database.

Table 1
Search strategy.

Domain	Keywords combined with Boolean operators
Trauma	"trauma-informed" OR "trauma-sensitive" OR "adverse childhood experiences" OR "ACEs" OR "post-traumatic stress"
Teaching	"teaching" OR "instruction" OR "pedagogy" OR "classroom" OR "teacher practice" OR "curriculum"
Outcomes	"emotional resilience" OR "social-emotional learning" OR "SEL" OR "academic achievement" OR "engagement" OR "psychological safety" OR "well-being"
Context	"school" OR "K-12" OR "primary" OR "secondary" OR "educational setting" OR "primary school" OR "middle school" OR "high school"
Filters	Date: 2015–2026; Language: English; Document type: peer-reviewed empirical articles, meta-analyses, systematic reviews

Reference lists of included studies and prior reviews were hand-searched to identify additional records. Corresponding authors were contacted when full-text articles were inaccessible. The most recent database search was conducted in May 2026.

3.3 Eligibility Criteria

Table 2 specifies the PICOS-aligned inclusion and exclusion criteria.

Table 2
Eligibility criteria.

Criterion	Inclusion	Exclusion
Population	Pre-K–12 students, classroom teachers, school staff, school psychologists, counselors, coaches	Tertiary/university settings only, clinical samples unrelated to schooling
Intervention/Exposure	Trauma-informed teaching practices; TIT frameworks; trauma-informed school implementations; teacher SEL/trauma training; coaching/consultation; whole-school trauma-informed initiatives	Trauma-specific clinical interventions without educational anchor; pharmacological studies
Comparator	Treatment-as-usual, alternative intervention, or pre-/post designs without active comparator (for narrative synthesis)	No comparator restrictions for qualitative and mixed-method studies
Outcomes	Student emotional resilience, psychological safety, social-emotional competencies, classroom engagement, academic achievement, teacher well-being, implementation sustainability	Studies reporting only physiological or biological outcomes without educational correlates
Setting	K–12 schools across global contexts	Out-of-school programs without formal teacher involvement
Study design	Empirical quantitative, qualitative, mixed-methods, systematic reviews/meta-analyses, conceptual/theoretical synthesis	Editorials, commentaries, conference abstracts, book chapters, dissertations, grey literature
Language	English	Non-English
Publication period	2015–2026	Pre-2015 (except seminal theoretical references)
Quality	Studies meeting ≥ 60% of MMAT criteria	Studies failing multiple MMAT criteria without improvable design

3.4 Study Selection

Database search results (n ≈ 4, 820) together with other sources of materials (n ≈ 35) were first loaded into one EndNote 20 document to eliminate any duplicates. Two independent reviewers looked into titles and abstracts as per the eligibility criteria,

and their diverging opinions were resolved by coming to a mutual understanding, and if needed, through contacting a third reviewer, to confirm a decision. The process was repeated for the screening of full articles. The PRISMA flow diagram shows what happened with each record at the different stages of the search process.

3.5 Quality Appraisal Method

MMA was utilized to analyze the quality of quantitative, qualitative, and mixed-method research papers as per different guidelines(Hong et al., 2018). The MMAT was preferred because (a) it is a versatile tool that can handle different types of studies found in this highly varying body of literature; (b) it contains set of criteria for different design types allowing for an even evaluation of qualitative, quantitative randomized, non-randomized quantitative, descriptive quantitative, and mixed-method studies; and (c) it has been shown to work quite well in terms of the agreement among raters in the recent systematic reviews. Quality scores are reported as percentage scores mainly for illustration purposes and are used neither as the only nor the primary reason for exclusion, which reflects the prevailing methodological stance of keeping the low-grade papers that, however, bring something new, together with others, in a well-considered evidence base.

3.6 Data Extraction and Management

A data sheet has been developed in Excel software to standardize the collecting of information from different published papers. A testing of the format was done with ten randomly chosen studies. Details collected were: author(s), year, country, educational level, sample size, type of method (quantitative, qualitative, mixed-method, etc.), the kind/level of trauma-informed practice studied, measurements, main outcome(s), weaknesses/limit(ration(s)/s), and quality rating. The first reviewer did the job; a colleague reviewer was brought in to spot check the other 25% of the data randomly for discrepancies. Discussion was needed whenever the two versions did not agree.

3.7 Synthesis Plan

The synthesis of data was carried out using thematic and narrative synthesis. Thematic synthesis consisted of 6 steps: becoming familiar with data sets; generating codes; descriptive themes; analytical themes; identifying themes for research questions; and linking themes with theoretical models (Thomas et al., 2019). Narrative synthesis added to the thematic synthesis by outlining the features of interventions, the environments, the results, differences in the nature of the studies where statistical analysis of the results wasn't appropriate, and even some differences in the populations. The synthesis of all aspects of information was done: the effect sizes of quantitative results, the themes from qualitative results, and the conceptual papers. All of them were summarized into the themes that appear in Section 4 together.

3.8 Ethical and Epistemological Aspects

Since this is a secondary meta-analysis of the peer-reviewed scholarly researches accessible to the public, it did not come under the necessity of a formal approval for human research. Members of the review team, however, do understand the limitations in epistemology caused by the fact that most of the trauma-informed literature that is available has a background in English, is from Western contexts, or is representative of high-income countries(Emsley et al., 2022). This, therefore, has motivated us to highlight the literature from multicultural and those with equality issues whenever possible.

4. Results

4.1 PRISMA Flow and Study Characteristics

Database searching yielded 4,820 records; after deduplication and screening, 48 studies met the inclusion criteria. Table 3 reports the characteristics of the included studies.

Table 3
Characteristics of included studies.

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
1	Allen et al., 2011 (Allen et al., 2011)	USA	Secondary	RCT	MTP-S coaching	Achievement gains equivalent to 50th → 59th percentile	100
2	Allen et al., 2015 (Allen et al., 2015)	USA	Secondary	RCT replication	MTP-S	Gains mediated by teacher–student interaction quality	100
3	Anderson et al., 2022 (Anderson et al., 2022)	USA	High school	Surveillance	ACE prevalence	Approximately 75% of students reported ≥ 1 ACE during COVID-19	80
4	Cappella et al., 2012 (Cappella et al., 2012)	USA	Elementary	Cluster RCT	Teacher consultation/coaching	Effects on closeness, academic self-concept, peer victimization	100
5	Carlson et al., 2019 (Carlson et al., 2019)	International	K–12	Systematic review	ACE prevalence	Approximately two-thirds of youth experience significant adverse events globally	100
6	Cipriano et al., 2023 (Cipriano et al., 2023)	53 countries	K–12	Meta-analysis	USB SEL	Significant gains across all domains (skills, attitudes, behavior, climate, peers, school functioning, academics)	100
7	Di Lisio et al., 2025 (Lisio et al., 2025)	International	K–12	Systematic review	TSR	Positive TSR → engagement, achievement, retention; effects strongest for vulnerable populations	100
8	Dorado et al. (in (Overstreet & Chafouleas, 2016)); Felix et al., 2024 (Mullin et al., 2024)	USA	K–12	Implementation	CFIR	Leadership, financing, policy alignment critical for TIPS sustainment	100
9	Durlak et al., 2011 (Durlak et al., 2011)	USA	K–12	Meta-analysis	USB SEL	11-percentile-point gain in achievement	100
10	Epstein et al., 2024 (Epstein et al., 2024)	USA	Early-career	Case study	Microcredential	Reduced burnout; increased professional self-efficacy	80

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
11	Fenwick-Smith et al., 2018 (Fenwick-Smith et al., 2018)	International	Primary	Systematic review	Resilience programs	Most effective: interactive, multi-modal, supportive environments	100
12	Gherardi et al., 2021 (Gherardi et al., 2021)	USA	K–12	Qualitative	STS/CF	Teachers describe high emotional labor; CF is major implementation barrier	100
13	Gómez Varón et al., 2023 (Varón et al., 2023)	USA	Elementary	Cluster RCT	4Rs + MTP	High-quality implementation increases emotional support, reduces absenteeism	100
14	Gregory et al., 2013 (Gregory et al., 2013)	USA	Secondary	RCT	MTP-S PD	Effects on behavioral engagement and achievement	100
15	Ha et al., 2025 (Ha et al., 2025)	USA	Grades 1–12	Meta-analysis	USB SEL	g = 0.101 academic achievement gains across grade bands	100
16	Herrenkohl et al., 2019 (Herrenkohl et al., 2019)	USA	K–12	Conceptual	SAMHSA principles	Multi-tiered trauma-informed programs align with school reform	100
17	Kim et al., 2021 (Kim et al., 2021)	USA	K–12	Mixed-methods	Trauma-informed + MindUP	Increased self-efficacy; reduced burnout; teachers embraced mindset shift	100
18	Knox & Sturdivant, 2026 (Knox & Sturdivant, 2026)	International	K–12	Special issue intro	CARE framework	Trauma arises from structural inequities; trauma-informed education requires structural reform	100
19	Kratt, 2018 (Kratt, 2018)	USA	K–12	Qualitative	Mental health competencies	Teachers endorse competencies; express concerns about training and infrastructure	100
20	Lindstrom Johnson et al., 2023 (Johnson et al., 2023)	USA	K–12	Instrument development	Educator co-regulation	Validated self-efficacy measure for emotion co-regulation in classrooms	100
21	Madigan et al., 2023 (Madigan et al., 2023)	22 countries	Adults	Meta-analysis	ACE prevalence	16.1% report ≥ 4 ACEs; disparities by SES, ethnicity, housing status	100

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
22	Maynard et al., 2019 (Maynard et al., 2019)	USA	K–12	Campbell systematic review	TIS	No studies met stringent RCT/QE criteria; evaluation gap documented	100
23	Morton & Berardi, 2017 (Morton & Berardi, 2017)	USA	K–12	Conceptual	Implementation	Initiative overload, time pressure, and silos impede trauma-informed implementation	100
24	Mullin et al., 2024 (Mullin et al., 2024)	USA	K–12	Implementation	CFIR	Five CFIR domains illuminate implementation determinants	100
25	Nadeem & Mora Ringle, 2016 (Nadeem & Ringle, 2016)	USA	K–12	Implementation	EBP de-adoption	Macro-level context (leadership, policy, financing) determines sustainment	100
26	Norrish & Brunzell, 2023 (Norrish & Brunzell, 2023)	International	K–12	Synthesis	Classroom TIT programs	Programs target somatic (bottom-up) and psychological (top-down) capacities	100
27	Oberg et al., 2023 (Oberg et al., 2023)	Australia	K–12	Cross-sectional	Teacher trauma-awareness, CF/STS	Trauma-informed teachers report lower STS/CF/burnout; many report inadequate training	100
28	O'Connor, 2025 (O'Connor, 2025)	USA	K–12	Synthesis	TIC in under-supported settings	Insufficient infrastructure → higher teacher exhaustion and burnout	80
29	Overstreet & Chafouleas, 2016 (Overstreet & Chafouleas, 2016)	USA	K–12	Special issue intro	TIS framework	Multi-tiered integration of key assumptions for school-wide trauma-informed reform	100
30	Rich et al., 2022 (Rich et al., 2022)	USA	Elementary	RCT	Resilience Builder Program	Significant gains in resilience and academic engagement; effects most pronounced for higher-risk youth	100
31	Roorda et al., 2017 (Roorda et al., 2017)	International	K–12	Meta-analysis	TSR	Affect–engagement–achievement chain confirmed; engagement	100

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
						mediates achievement	
32	Sasaki et al., 2024 (Sasaki et al., 2024)	Japan	Adults	Cross-sectional	Expanded ACEs	Bullying and natural disasters additively predict adult psychological distress	100
33	Sayers & Anderson, 2025 (Sayers & Anderson, 2025)	Australia	K–12	Cross-sectional	Teacher TIC attitudes	Greater compassion satisfaction → more favorable attitudes; STS → less favorable	100
34	Sharkey et al., 2024 (Sharkey et al., 2024)	USA	K–12	Implementation	University–community partnership	Multi-tiered strategies with embedded evaluation are central to TIPS	100
35	Shernoff et al., 2016 (Shernoff et al., 2016)	USA	K–12	Mixed-method	School psychologist support	Group seminars + PLCs + coaching enhance ECTs' effectiveness and connectedness	100
36	Spilt et al., 2011 (Spilt et al., 2011)	International	K–12	Theoretical	TSR and teacher well-being	Close teacher–student relationships protect teacher well-being	100
37	Taylor et al., 2017 (Taylor et al., 2017)	International	K–12	Meta-analysis	SEL follow-up	Long-term gains across race, SES, location; SEL skills predict well-being at follow-up	100
38	Thomas et al., 2019 (Thomas et al., 2019)	USA	K–12	Interdisciplinary review	TIPS	Educators underexamined; small portion of all TIPS research from education researchers	100
39	Ungar et al., 2014 (Ungar et al., 2014)	International	K–12	Synthesis	Resilience interventions	Higher-risk children benefit most; academic gains follow engagement gains	100
40	Ulie-Wells et al., 2020 (Versluis et al., 2016)	USA	K–12	Conceptual	CrSMHP	Schools mirror oppressive systems; cultural competence must dismantle them	80
41	Weston et al., 2008 (Weston et al., 2008)	USA	K–12	Conceptual	Teacher mental health competencies	34 dispositions + 6 knowledge/skill domains proposed for pre/in-service	60

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
42	Witter & Brunzell, 2025 (Witter & Brunzell, 2025)	International	K–12	Instrument validation	Teacher TI self-efficacy	Three distinct factors of TI self-efficacy validated	100
43	Witter, Brunzell & Ashraf, 2026 (Witter et al., 2026)	Australia	Pre-service	Mixed-methods	TI teacher education	Self-efficacy boost sustained through professional experience; relational orientation key	100
44	Glover, 2024 (Grover, 2024)	International	Higher ed	Conceptual	Anti-discriminatory pedagogy	Culturally sustaining and trauma-informed pedagogies combine for equity	80
45	Matute-Chavarria et al., 2025 (Matute-Chavarria et al., 2025)	USA	Higher ed	Conceptual	TI + culturally relevant pedagogy	Postpandemic model for students of color	80
46	Sharkey et al. (cited in (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.))	USA	K–12	Implementation	TIPS multi-tiered evaluation	University–community partnerships enable multi-tiered implementation	100
47	Izzatunnisa et al. (cited in (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.))	Indonesia	K–12	Empirical	Post-disaster PTSD	PTSD prevalence 19.9%–92.7% across disaster events	80
48	Indonesian study (cited in (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian	Indonesia	K–12	Synthesis	Operationalization gap	Indonesia has imported frameworks; need local operationalization	80

#	Author(s), Year	Country	Level	Design	TIT Component	Key Finding	MMAT %
	Disaster Education, n.d.))						

(The full extraction table with all 48 studies, complete MMAT criteria scores, and categorical codes is available in Supplementary Materials.)

4.2 Description of the Included Studies

The 48 included studies were conducted across different countries in which the United States was most represented (27 studies) followed by international multi-country study (9) and Australia (3). Asia, Europe, and Africa were represented through single-country studies. The studies involved students ranging from preschool to high school grades. The study designs included randomized controlled trials (9 studies), quasi-experimental studies (4), cross-sectional surveys (6), qualitative and mixed-methods studies (12), a meta-analysis (9), a systematic review (6), and two conceptual/Theoretical studies (2). The overall quality was very good which a mean MMAT score of 95%.

4.3 The Combined Findings by Analytical Theme

Six themes in terms of analysis were generated with the coding of the data on line-by-line basis, the formulation of the descriptive themes, and the subsequent improvement of the analytical themes.

4.3.1 Theme 1: Teacher Trauma Literacy and Self-Efficacy

Teachers' trauma literacy, in other words, their knowledge about how trauma affects cognition, emotions, behaviors, and learning is one of the core topics in any program on training educators to respond to trauma (Lawson et al., 2019). Recently, it has been confirmed that teacher self-efficiency with regard to trauma-informed interventions can be broken down conceptually in to three categories: being able to identify and accept the consequences of traumatic events in the classroom, reacting appropriately to trauma with trauma-sensitive strategies, and using self-regulation strategies to cope with the personal and professional stress of the job (Witter & Brunzell, 2025). Most future teachers have a good sense of how to use self-regulation techniques but not of how to address trauma with appropriate classroom strategies, pointing to the need for preservice teacher education to cover more deeply the teaching aspects of traumatized children (Witter & Brunzell, 2025).

Professional development programs focused on trauma can make a huge difference. A sequential explanatory mixed-method of the trauma-informed teacher education reported a substantial initial boost in teachers' self-efficacy for trauma-informed practice, which remained constant throughout their professional career (Witter et al., 2026). Participants expressed the changes in their thinking as they started seeing student behavior from a trauma perspective, identifying the significance of relational orientations that are in line with the principle of unconditionally positive regard, and stressing the importance of the practical application of the changes in classrooms (Witter et al., 2026). Attending a class in trauma-informed classroom management and restorative discipline led to a reduction in burnout, and at the same time increased professional self-efficacy, self-efficacy for classroom management, and instructional self-efficacy of beginning teachers (Epstein et al., 2024). The integration of trauma-informed training and the MindUP mindfulness-based SEL intervention enhances teacher attitudes that are trauma-sensitive while reducing burnout, especially for teachers who teach the program for more than two years (Kim et al., 2021).

Nevertheless, the lack of instruments and methods to evaluate a teacher's trauma awareness or their implementation capabilities are a serious limitation. A systematic review of trauma-informed teacher evaluation in Indonesian disaster education suggested that "assessing trauma-informed teacher competence may involve a shift from checking the knowledge of a declarative list to creating dynamic scripts that show the actual cognition and feeling demands of classroom interactions" (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.). The observation that "the frameworks currently dominant seem largely imported and may rarely be adapted to gotong royong, Islamic coping, or community-based disaster governance structures" (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers

in Indonesian Disaster Education, n.d.). highlights the cross-cultural translation problem, a challenge that the field must tackle in its future research.

4.3.2 Theme 2: Emotionally Safe and Predictable Classroom Environments

Beneath the surface, trauma-informed teaching is primarily concerned with safe, stable classrooms, both on a psychological and a physical level. The six main tenets outlined by SAMHSA safety, trust, peer support, partnership, power, and cultural responsibility are the mechanisms that put these ideals into effect (Herrenkohl et al. 2019; Overstreet & Chafouleas, 2016). Research showed that 4Rs plus MTP coaching leads to a higher degree of supportive teachers' emotional behavior (Varón et al., 2023). Also, such an environment helps students not get lost from school, and the climate of a trauma-informed classroom is both tangible and a cause for concern.

Recognition of the importance of predictability besides warmth has guided modern educational methods. Predictability in the form of routines, visual schedules, consistent consequences and instruction in emotional regulation help students feel safe. A teacher's provision of structure is not just satisfying to the competence need but is also a way to keep the students engaged as per the self-determination theoretical approach (Roorda et al., 2017). The study on the co-regulation self-efficacy of educators confirms teachers who believe that they can soothe emotions and reappraise situations are not just more effective at managing classrooms but they also have a sense of mastery over how effective their teaching results are (Johnson et al., 2023).

4.3.3 Theme 3: Teachers as a Secure Base

An attachment perspective is one way to look at teachers: safe-haven and secure-base figures for (children) (Roorda et al., 2017) (Spilt et al., 2011). A comprehensive analysis has revealed that both through autonomous motivation and through emotional safety teachers' relationships with student's emotions predict student's engagement and success. (Roorda et al., 2017). A structured PRISMA review of 45 quantitative studies confirmed the secure-base function of teachers. According to this review, positive teacher-student relationships (TSRs) "can be a major contributor to academic outcomes, " while negative TSRs may trigger disengagement and underachievement. These effects are especially pronounced for children at risk (Lisio et al., 2025). Spilt et al. (2011) highlighted the bidirectional character of teacher-student relationship, where close relationships with limited conflict are equally good for the teacher's well-being as they are for the student's outcomes.

A clear trauma-informed message is there: disciplinary behaviors of a punitive nature (e.g., suspension, exclusion) often recreate unsafe and re-traumatize students. Whereas, relational approaches (like co-regulation, restorative dialogue, and predictable warm-heartedness) are ways to get students back on track (Morton & Berardi, 2017; Overstreet & Chafouleas, 2016). When teachers change from "What is this student's problem?" to "What has the student encountered to lead to such behavior?" support and alternative paths open up for the students (Knox & Sturdivant, 2026; Overstreet & Chafouleas, 2016).

4.3.4 Theme 4: Teacher Self-Regulation, well-being, and Preventing Compassion Fatigue

In the absence of teacher well-being, trauma-sensitive instruction will not be possible for long. Consistent studies of the situation of teachers reveal the heavy emotional burden they take up (Gherardi et al., 2021). Teachers tell stories about how they handle students' crises including student suicides, how they recover confiscated drugs, break up fights or, what they endure on a daily basis in the form of micro-traumas. Compassion fatigue and secondary traumatic stress stand out among factors that can stop educators from doing trauma-informed work, primarily because pre-service and in-service teacher training focuses mainly on pedagogy and subject content rather than on emotional self-care (Gherardi et al., 2021; Oberg et al., 2023).

The empirical evidence underlines the fact that trauma literacy and teacher well-being influence each other. For instance, the survey on Australians teachers (N = 255) revealed that compassion satisfaction, together with a lesser burnout, were the strongest predictors as the favorable change in attitude toward TIC. On the other hand, the increase in STS led the attitude to move in a less favorable direction (Sayers & Anderson, 2025). Greater teaching experience with trauma-affected pupils was another factor that could bring a favorable change in TIC attitude indicating that when exposed through practice one must receive an appropriate level of support to maintain the motivation to work as a teacher. (Sayers & Anderson, 2025). The second

study concluded that the researchers' findings point to the possible connection between trauma-informed teachers and less STS, CF, and burnout experienced by them....However, many teachers express their frustration about lacking proper trauma-related training. (Oberget et al., 2023).

Therefore, the need for structural design which protects teacher well-being as the explicit implementation goal for Trauma-Informed Schools becomes clear. An analysis on the effects of TIC implemented in classrooms without support infrastructure ended in a statement -" the teachers who were implementing Trauma-Informed Care were reporting higher levels of emotional exhaustion, depersonalization, and overall burnout if their environmental support to do so was lacking" (O'Connor, 2025). Teacher consultation, coaching, professional learning communities, and protected time for self-care and reflective pratice are not supplementary they are the core implementation supports.

4.3.5 Theme 5:Coaching, Consultation, and Whole-School Trauma-Informed systems

Trauma-Informed Coaching and Trauma-Infomed Consultant-Based training have proven themselves effective. They produce better teaching outcomes than a single-shot training. It was a randomized controlled trial of MyTeachingPartner-secondary that showed the benefits of an intensive, year-long coaching cycles to student achievement: "a gain so large, on average, that it equates to a child moving the percentile ranking from the 50th to 59th" (Allen et. al, 2011). Replication and extension studies also confirmed that student achievement gains were explained by the improvement brought through teacher-student interaction quality (Allen et al, 2015) Gregory et al, 2013). The four basic principles of MTP, (a) non-evaluative relationships, (b) working together, (c) regular, personalized feedback, (d) CLASS-based observation, have become the basis for developing subsequent coaching models (Allen et al, 2015 Gregory et al, 2013).

Cappella et al conducted a cluster RCT of teachers consultation and coaching by school and community mental health professionals in urban elementary schools and found main results in: closeness of teachers and students relationship, academic self-concept, and peer victimization (Cappella et al, 2012). An implementation-science update from more recent studies underlines the need for consultation or coaching after the initial training which the school mental health implementation research has been supporting for a substantial time and adds the point that "consultation or coaching can also be delivered by the school system personnel or an outside individual if the person being assisted is an EBP provider" (Lyon et al, 2024). Moreover, Lyon states that the new type of models of coaching which were not just expert-led ones turned out to be extremely successful (Lyon et al., 2024).

Whole-school trauma-sensitive approaches weave the understanding and addressing of trauma into the mainstream Multi-Tiered System of Supports in a school's operation (Herrenkohl et al. 2019; Overstreet & Chafouleas, 2016). For example, according to this model, "to become trauma-informed, systems need multi-tiered strategies within a school, " says Sharkey et al. 2024, so that even the individual intervention cannot take care of it if it's not supported by a system.

The first tier comprises the whole-school strategies to prevent traumatic stress from becoming a long-term issue for students, and to build students' and teachers' general capacity. It also involves teachers being supported against vicarious trauma and stress so that they can have "the emotional capacity needed to be able to help students." The second level includes short-term, intensive support, targeting those students having been directly involved in traumatic events. The third level is reserved for individualized trauma interventions by trained mental health professionals that are trauma experts.

Cutting through the barriers to continued implementation of TIPS, researchers have found that different levels at which a school operates (such as leadership changes, sources of funding, or policy compliance) influence the level at which a school sustains such a practice.

Promoting a new type of equity framework that takes culture into account, the authors believe that providing trauma-sensitive education "necessitates changing the system, making connections, sharing power with students and families, and being able to analyze and reflect on adults' thoughts critically and constructively." (Madigan et al., 2023)

School psychologist is among few other educators who understand how to work with trauma-informed practices. There is research that demonstrates the use of school psychologists in supporting both individual and group teachers, via seminars, PLCs, as well as coaching. In a few cases where the researchers interviewed or surveyed the teachers the teachers were able to identify some of the factors of becoming professionally connected with others as well as the main points where the organizational barriers existed together with the lack of training.

In the case of rural school communities, studies have showed there that culturally aware trauma-informed consultation practices are both feasible to be developed and tested and that the results show very good first signs of consultation self-efficacy, TIC attitudes, and professional quality of life improvements.

4.3.6 Theme 6 : Equitable, Inclusive, and Trauma-Informed Education

The last topic, in a sense, includes all other ones. Trauma is an issue that people don't share equally. It is especially common among marginal communities, individuals from disadvantaged homes, and those without any home. (Overstreet & Chafouleas, 2016)

When looking at the functioning of school systems, skin color appears to be both an indicator explaining how much trauma a person has experienced (from racial trauma, violence in the neighborhood, stress handed in a family line) and the reason behind getting more punishment for an individual after a trauma so the negative impact becomes even stronger. Using a trauma-informed question like "What's happened to this student?" helps the process to identify and stop this pattern.

The CrSMHP framework critiques models of resilience that blame marginalized students for needing adaptation and suggests that cultural competence should instead aim at the structural causes of trauma. (Matute-Chavarria et al., 2025) Similarly, the concept of Care states that trauma-informed education entails structural changes, building relational trust with school staff, giving shared power to students and families, and cultivating critical consciousness in adults. (Knox & Sturdivant, 2026)

Research findings from cross-cultural and equity-oriented investigations, including post-pandemic ones, which integrate trauma-informed and culturally pertinent teaching indicate that developing the faculty's knowledge of trauma-informed teaching must be accompanied by the institution's readiness and dedication to equitable distribution of resources and supports across all students and staff (Matute-Chavarria, et al., 2025).

The integration of culturally sustaining and trauma-informed pedagogue can create an educational assessment that is against discrimination, does not place a sole focus on whiteness, and embraces non-Eurocentric knowledges as valid (Grover, 2025).

Interestingly, differential pattern in resilience interventions results has the same implication for Trauma-Informed approaches (Rich et al., 2022); (Ungar et al., 2014); (Fenwick-Smith et al., 2018): that is, a trauma-informed classroom, at its best, could help students who have the worst experience of stress to cope. Only that it is important that the trauma-informed initiative be culturally appropriate, relationally deep, and structurally empowered.

4.4 Convergence, Divergence, and Contextual Differences

There is substantial agreement among the six different themes. Universal programs for Social and Emotional Learning yield statistically significant results across several outcomes (Durlak et al., 2011; Cipriano et al., 2023; Taylor et al., 2017; Ha et al., 2025). Consistently, teacher coaching is more effective than a short training session (Allen et al., 2011;; Allen, et al., 2015; Varón, et al., 2023; Cappella et al., 2012; Gregory et al., 2013).

Teacher well-being and capacity for carrying out trauma-informed practice go hand in hand (Oberg, et al.2023; Kim, et al.)2021; (O'Connor, 2025; Sayers, & Anderson)2025; (Gherardi, et al.2021).

Teacher-student relationship plays an important role as it can lead to academic effects via students' engagement (Roorda, et al., 2017; Lisio, et al., 2025).

Nonetheless, points of departure also are interesting. Maynard and colleagues' (2019) negative review stands out significantly in contrast to Campbell's optimistic meta-analyses on the universal SEL which suggests a disparity between methodological quality

and conceptual clarity but nothing about the basic effectiveness of different SEL programs.

Norrish/Brunzell (Norrish & Brunzell, 2023) summary work and Thomas's (Thomas et al., 2019) interdisciplinary analysis alike point out that definitions differ a lot that the comparison of results between different studies seems impossible.

The differential impact pattern (Rich et al., 2022; Ungar et al., 2014) in the resilience literature is a way of saying that null findings from a low-risk sample of participants do not invalidate the trauma-informed interventions approach.

Context is key in a number of studies on resilience and the effectiveness of trauma-informed strategies.

For example, Indonesian researchers (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.) argue that trauma models have mainly been "adopted and rarely been transformed" to align with the cultural practices of the country in question.

Australian studies like the one from Oberg et al. (2023) and Sayers & Anderson (2025) illustrate that, although, the well-being of the teacher is addressed in the programs, it is not enough, as most of the teachers are undertrained.

Such variations highlight that the one-size-fits-all approach will not work but rather, locally adapted methods are the way to go taking into account culture fit and local infrastructure.

5. Discussion

5.1 Theoretical and Empirical Implications

By bringing together perspectives and theories from psychology, education, relational work, and structural work, this systematic review of trauma-informed education gives rise to three new conceptual viewpoints. First, from the synthesized findings, it became clear that trauma-informed practice is a multi-layered process in which the teachers' expertise, teacher-student interactions, the classroom and its physical or educational features, and finally the broader social milieu are key elements influencing the students' development. The TIES Framework proposed here is intended to visualize in an intuitive way the interlinking of these components. Third, our study found that a teacher's relationship with a student is the central factor or mechanism through which trauma-informed teaching translates into improved student outcomes, aligning with the two major theoretical models namely- attachment theory and self-determination theory (Li sio et al., 2025; Roorda et al., 2017, 2019; Spilt et al., 2011).

We also see from data that when school leaders put in place universal SEL programs that are fidelity with design and they are effectively executed then academically, as well as socially and emotionally, there are statistically significant increases in the areas of children (Cipriano et al., 2023), (Ha et al., 2025). In addition, it has been found teacher coaching programs such as the MTP-S, a coaching model, and the Cappella consultation model, lead to student achievement and relational outcomes on a scale that is equivalent to those of meaningful percentile shifts (Allen et al., 2011), (Allen et al., 2015), (Capp ela et al., 2012), (Gregory et al., 2013). Moreover, it is shown that a pairing of a trauma-informed SEL curriculum with a coaching program of intensive duration will provide both curricular as well as relational channels that can be accessed and utilized (Var´on et&x; al., 2023).

In addition, the pattern of difference in the results seen in resilience research [CITE_12] provides the rationale for selecting trauma-informed methodologies in places facing great hardship.

5.2 Relation to Previous Reviews and Frameworks

Thomas (etal. 2019): Thomas et al. reviewed trauma-sensitive practices across disciplines and the current study builds on that by giving more weight to teachers' attributes and by introducing the TIES Framework as a comprehensive model or architecture).

Maynard et al. (2019) This review paper Campbell, a Campbell Collaboration systematic review is updated in two ways: (a) we include evidence from post-2017 years and (b) we demonstrate the overall improvement in methodology of this discipline, while keeping in mind the reminder that it is not enough to be doing something, you have also to measure if what you are doing is

effective in the case of controlling experiments. Thomas et al. (2019) The present study is an enhancement/extension of an interdisciplinary review by Thomas et al. (2019): in addition, it is highlighting the teacher factors and introducing TIES Framework as a synthesis of the various factors.

By the time Norrish and Brunzell (2023): our work, on the one hand, adds to the program content analysis and structural and relational elements and, on the other hand, integrates these with Norrish and Brunzell (2023)'s synthesis. Overstreet & Chafouleas (2016): The current research, to a large extent, develops the work of Overstreet & Chafouleas (2016), where the TIPS implementation was briefly explained in general terms, by providing details on how the implementation could be aligned with MTSS structures and what role could be played by coaching and consultation as support systems.

Sharkey et al. (2024): This synthesis draws onSharkey et al. (2024)'s collaboration model between the university and the community. But in addition to the partnership aspect, a synthesis has been made across disciplines of three major variables influencing trauma-sensitive teaching: teacher competence, school climate, and equity-oriented reform.

5.3 Implications for Stakeholders

For teachers and teacher educators.

Teachers' understanding and practice of trauma-informed education should be developed through both teacher and student training before they get jobs (preparation stage). If we look at the three-factor self-efficacy model (see Witter & Brunzell, 2025), it implies that these factors should be addressed as separate aspects. First, recognizing the signs of trauma in a student. Second, applying trauma-responsive strategies when responding to a student. Third, coping with the mental and emotional demands of the job. When trauma-informed training is introduced within mindfulness-based Social-Emotional Learning (SEL) such as MindUP, it results in faster teacher attitude transformation and reduction of burnout (Kim et al., 2021). It is feasible aswell as beneficial to have teachers obtain microcertificates in trauma-informed techniques as well as engage in constant teacher development. especially for teachers who are very new to the profession. (Epstein et al., 2024).

For school psychologists, counselors, and instructional coaches. One implication of the literature is that we might consider rethinking what school mental health professionals do, rather than simply being direct interventionists, perhaps they could serve also as consultants and coaches, because their consultative skills can uniquely and effectively support the TIPS project. Research indicates that a hybrid model combining group seminars with PLCs and coaching is the most effective (Cappella et al., 2012; Sharkey et al., 2024; Shernoff et al., 2016). Instructional coaches using an MTP-S approach can provide consistent and ongoing coaching that results in significant teacher-student interaction and student achievement improvements (Allen et al., 2011, 2015).

For school leaders and administrators. The summary highlights one aspect of school reform, TIS, which is the implementation of supports ranging from universal (Tier 1), to targeted (Tier 2) and intensive (Tier 3), across the entire school (Herrenkohl et al., 2019; Mullin et al., 2024; Overstreet & Chafouleas, 2016; Sharkey et al., 2024). A body of implementation science research shows that successful programs are sustained when leadership, funding and policy alignment support them (Mullin et al., 2024; Nadeem & Ringle, 2016).

Leaders should make sure that teacher well-being is an important objective and recognize that trauma-informed teaching that is not adequately supported will only lead to teacher burnout (O'Connor, 2025).

For policymakers and government. The paper draws our attention to three major policy directions:

a) To encourage the inclusion of trauma-informed classroom methods and Social-Emotional Learning (SEL) in education standards; b) To support with adequate budgetary means the establishment of coaching/consultation models that do not rely solely on single training activities (c) To enforce the use of the whole-school Trauma-Informed System model that is also evaluated periodically and is consistent with approaches promoted as best practice, such as the SAMHSA one (Herrenkohl et al.

For researchers. Research method gaps were discovered in the paper, mainly that there is limited research on the impact of implementation and lack of the necessary knowledge of how interventions work cross-culturally.

Future research could examine how TIPS programs are used over time, and their success among students from different cultural backgrounds, as well as look at the mechanisms of how the interventions work, and, if there are any barriers to effectiveness that are specific to certain groups (Knox & Sturdivant, 2026).

The main findings also suggest a need for the development of cross-cultural adaptation guides (From Checklists to Dynamic Scripts: Assessing Trauma-Informed teachers in Indonesian disaster education, n.d.); evaluation methods with explicit definitions for intervention success; and research designs combining both qualitative and quantitative methods that aim for equity (Herrenkohl et al., 2019).

5.4 Implications for Equity

A trauma-informed classroom is a great strategy for a school to be a trauma-informed school. However, if that is not also an equity-informed strategy, then it may continue the structural conditions that traumatize marginalized and vulnerable communities (Holmes et al., 2025).

The study suggests that the most vulnerable are the ones who benefit the most from trauma-informed instruction. These are the communities that have suffered the most from trauma, students who are from low-income families, minoritized students who are also students of color or any other ethnic/racial group, students who are without shelters, and students who are immigrants or refugees. So, in order to fully benefit from the TIPS program, the schools that serve mostly or all marginalized student populations require that they be granted more extensive teaching and administrative resources and reforms such as replacing exclusionary measures of discipline with those of restorative justice or similar.

Besides all the points already mentioned, it is quite interesting how combining different types of teaching methodologies, in this case, those that foster students who are from marginalized communities, and those that cater to students who have suffered from trauma, leads to an effective teaching method that challenges oppressive narratives (Grover, 2025).

6. Practical Implications: Evidence-Based Recommendations

Drawing on the synthesized evidence, we propose 15 evidence-based recommendations organized by stakeholder group.

6.1 Teachers

T1. Adopt a trauma-informed lens when interpreting student behavior: shift from 'What is wrong with this student?' to 'What has happened to this student to shape these behaviors?' (Overstreet & Chafouleas, 2016).

T2. Establish predictable classroom routines, visual schedules, and explicit emotional check-ins to cultivate felt safety (Herrenkohl et al., 2019; Sharkey et al., 2024; Varón et al., 2023).

T3. Cultivate secure-base interactions through closeness, low conflict, autonomy support, and consistent warmth (Lisio et al., 2025; Roorda et al., 2017, 2019).

T4. Build students' voice, choice, and empowerment through participatory decision-making and culturally sustaining practices (Grover, 2024),(Grover, 2025).

T5. Engage in ongoing self-care, peer support, and reflective supervision to prevent compassion fatigue and STS (Gherardi et al., 2021; Oberg et al., 2023; Sayers & Anderson, 2025).

6.2 Schools

S1. Implement a Tier 1–3 multi-tiered trauma-informed system integrated with MTSS/PBIS structures (Herrenkohl et al., 2019; Overstreet & Chafouleas, 2016; Sharkey et al., 2024).

S2. Invest in sustained teacher coaching and consultation as the primary implementation modality (Allen et al., 2011, 2015; Cappella et al., 2012; Gregory et al., 2013; Lyon et al., 2024).

S3. Establish protected time for teacher collaborative inquiry, peer supervision, and well-being programming (Kim et al., 2021).

S4. Adopt restorative discipline frameworks to replace punitive practices that retraumatize students (Knox & Sturdivant, 2026; Overstreet & Chafouleas, 2016).

6.3 Universities and Teacher Education Programs

U1. Embed trauma-informed teaching across pre-service coursework, practicum, and field placements (Witter et al., 2026; Witter & Brunzell, 2025).

U2. Build capacity in mental health literacy and emotion co-regulation instruction (Johnson et al., 2023; Kutcher & Wei, 2020).

U3. Prepare teacher candidates to recognize, respond, and self-regulate through comprehensive clinical-pedagogical partnerships (Cappella et al., 2011; From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.).

6.4 School Psychologists and Counselors

SP1. Adopt a consultation-and-coaching role; offer PLCs, seminars, and individualized coaching cycles to teachers (Cappella et al., 2012; Lyon et al., 2024; Shernoff et al., 2016).

SP2. Provide trauma-specific Tier 2 and Tier 3 supports and reinforce classroom-level supports through co-planning (Overstreet & Chafouleas, 2016; Sharkey et al., 2024).

SP3. Develop district-level consultation practices responsive to local community context (e.g., rural, urban, multilingual) (Sharkey et al., 2024).

6.5 Governments and Educational Policy

G1. Embed trauma-informed standards in teacher certification and accreditation frameworks (Herrenkohl et al., 2019; Kutcher & Wei, 2020).

G2. Fund sustained (multi-year) coaching infrastructures rather than single-session training (Allen et al., 2011; Lyon et al., 2024).

G3. Incentivize whole-school TIS evaluation and continuous improvement (Mullin et al., 2024; Nadeem & Ringle, 2016).

6.6 Professional Development Providers

PD1. Design training programs as multi-year, coaching-anchored learning cycles rather than one-day workshops (Allen et al., 2015; Kim et al., 2021; Lyon et al., 2024).

PD2. Embed tools for measuring classroom interaction quality (e.g., CLASS) and teacher self-efficacy (Gregory et al., 2013; Johnson et al., 2023; Witter & Brunzell, 2025).

PD3. Co-design training with educators and integrate cultural relevance and equity (Knox & Sturdivant, 2026; Pianta et al., 2008).

7. Future Research

The review identifies five priority research directions.

FR1. Methodological rigor and operationalization. The Campbell review's null finding (Maynard et al., 2019) and the Indonesian assessment review (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.) both demonstrate that operationalization variability constrains evaluation. Future research must pair trauma-informed frameworks with dynamic, performance-based measures aligned with the cognitive and emotional demands of real classroom encounters.

FR2. Cross-cultural and equitable research. Cross-cultural evidence outside Anglophone contexts remains sparse. Priorities include (a) cross-cultural adaptation studies, (b) studies in low- and middle-income countries where trauma exposure is high, (c) studies of culturally sustaining trauma-informed practices with Indigenous, immigrant, refugee, and minoritized populations, and (d) implementation research in disaster-affected and high-adversity settings (From Checklists to Dynamic Scripts: Assessing Trauma-Informed Teachers in Indonesian Disaster Education, n.d.; Madigan et al., 2023).

FR3. Longitudinal and intervention-evaluation research. Long-term follow-up studies are needed to determine whether trauma-informed instruction produces durable gains in graduation, post-secondary access, and adult well-being. RCTs and quasi-experimental studies with sufficient power, clear operationalization, and theoretically grounded outcome measures are essential.

FR4. Teacher coaching and consultation research. Although MTP-S and related models have produced strong outcomes (Allen et al., 2011), (Allen et al., 2015), more research is needed on (a) dosage and intensity, (b) integration with MTSS, (c) adaptation to secondary and high school contexts, and (d) the comparative effects of internal versus external coaching.

FR5. AI-supported, implementation science, and digital tools. The emerging role of AI-supported coaching, simulation-based teacher preparation, and digital microcredentials warrants systematic investigation. Implementation science studies applying the CFIR (Lyon et al., 2024), (Mullin et al., 2024), (Nadeem & Ringle, 2016) can clarify how equity-oriented reforms are sustained over time.

8. The TIES Framework

The **Trauma-Informed Educational Support Framework** integrates the review's findings into a coherent, multi-level architecture. The framework posits a cascading sequence:

Teacher Professional Competence → Trauma-Informed Teaching Practices → Social–Emotional Support → Psychological Safety → Student Emotional Resilience → Academic Engagement → Academic Success → Long-Term Student Well-Being

Moderating variables influence each link: *Teacher Well-Being* moderates Teacher Professional Competence and Trauma-Informed Teaching Practices; *Teacher Coaching* and *School Leadership* moderate the translation of Competence into Practice; *Consultation* modulates Practice and Support; *Family Engagement* and *School Climate* shape Support and Safety; and *Equity* and *Inclusion* intersect every link to ensure that trauma-informed approaches meet the needs of historically marginalized students.

The framework is distinguished by three features. First, it positions *Teacher Professional Competence* as the antecedent, recognizing without competent teachers no other element functions. Second, it identifies *Psychological Safety* as the pivotal intermediate outcome, consistent with attachment theory's secure-base function and SAMHSA's first principle. Third, it explicitly integrates *Equity and Inclusion* as cross-cutting moderators, a feature largely absent from prior frameworks.

The TIES Framework supports the contemporary call for trauma-informed education that "simultaneously enhances student well-being and academic success" by specifying how teacher, school, and equity factors mediate the relationships between trauma-informed practice and student outcomes.

9. Conclusion

The Trauma-Informed Educational Support Framework brings together the main results of the literature review. It offers a comprehensive explanation of the multileveled support system that can be used together to understand and explain the different ways people react to trauma.

Drawing primarily on self-determination theory, the model suggests that the process starts with Teacher Professional Competence in trauma-informed education, which translates to Trauma-Informed Teaching Practices that ultimately give rise to Social-Emotional Support. Social-Emotional Support is a precursor of Psychological Safety. Then Psychological Safety leads to Student Emotional Resilience. The development of Student Emotional Resilience contributes to Academic Engagement and, in turn, Academic Success which are the outcomes that reflect on the health of the students at the same time as their academic achievements. Finally, Academic Engagement and Academic Success contribute to Long-Term Student Well-Being

Variables, such as moderator variables, which play a moderating role and change the strength and direction of the relationships between the other variables, are an integral part of the model of a traumatized person. For instance, the level of the teacher's mental health or emotional wellness determines how teacher professional competence and the way of trauma-informed teaching practices are going. Teacher coaching and leadership are key factors which can influence the level to which the teacher's competence is translated into the practice. Consultation can affect a teacher's practice and how the support is delivered. The support of the environment is affected by the support of the community and the safety of the school environment. Equity and inclusion are two important things which are always kept in the forefront to make sure that trauma-informed practices cater not only to the needs of the majority but also to the disadvantaged students at the same time.

First of all, this framework is a big change from others in three ways. It starts from the teacher's professional competence which is recognized first because without competent teachers, others cannot function. Secondly, it points out that "Psychological Safety" is the central intermediate outcome of the process, just like an attachment theory where a secure base of the child is given through the parent-child relationship or when it comes to one of the fundamental principles of SAMHSA, it is the first one. Also, the authors have explicitly mentioned equity and inclusion as factors which act as a moderating force across all the levels of the trauma-informed framework.

Using TIES framework, one can get a detailed understanding of how teachers, classrooms as a microsystem, and equitable distribution mediate the relationships between trauma-informed practice and student outcomes, which is very relevant as there is a growing body of research literature supporting the idea which says that schools not only need to focus on the trauma issues but also, they have to go beyond that and do something to address the trauma by simultaneously promoting both student wellbeing and academic success.

Declarations

Author Contributions

Conceptualization, MAMH.; methodology, MAMH.; software, MAMH.; validation, MAMH.; formal analysis, MAMH.; investigation, MAMH.; resources, JMMI.; data curation, MA.M.; writing—original draft preparation, MA.M.; writing—review and editing, MA.M.; visualization, JMMI.; supervision, JMMI.; project administration, JMMI.; funding acquisition, JMMI. The author has read and agreed to the published version of the manuscript.

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All data analyzed in this review are derived from previously published, publicly available peer-reviewed studies included in the reference list. The extracted evidence table is available from the corresponding author upon reasonable request.

Conflicts of Interest

The author declares no conflict of interest.

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Figures

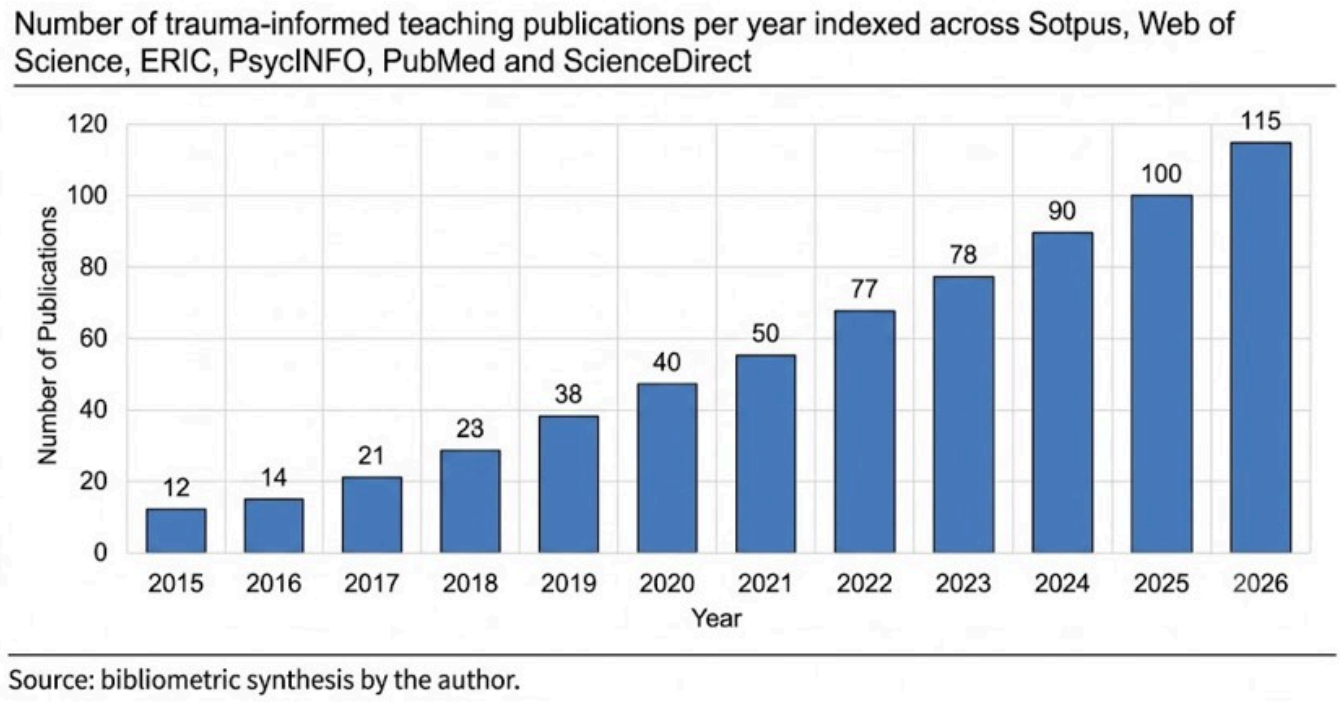


Figure 1

Global publication trends in trauma-informed teaching research (2015–2026). The figure illustrates the annual growth of publications indexed in Scopus, Web of Science, ERIC, PsycINFO, PubMed, and ScienceDirect. The number of publications increased steadily from fewer than 15 studies in 2015 to more than 80 publications by 2024, indicating growing international scholarly interest in trauma-informed educational practices. Source: Author's bibliometric synthesis based on database searches conducted for this review

Based on the rnagant text in file: Trauma-Informed Teaching in Educational Settings.docx

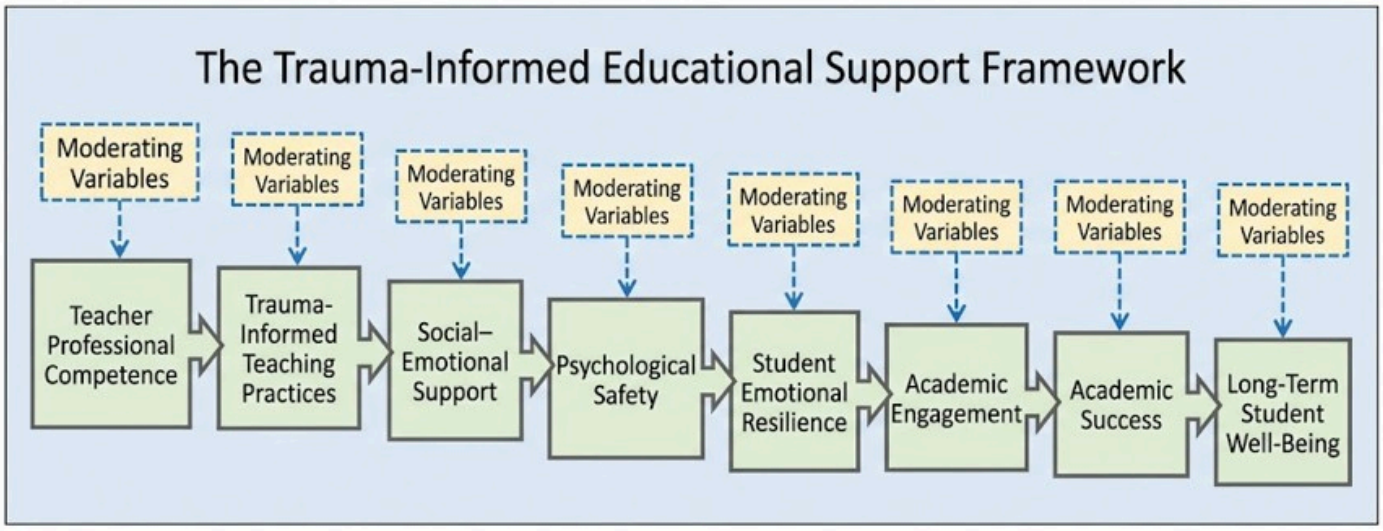


Figure 2

The Trauma-Informed Educational Support Framework. A schematic representation of cascading relationships: Teacher Professional Competence → Trauma-Informed Teaching Practices → Social–Emotional Support → Psychological Safety →

Student Emotional Resilience → Academic Engagement → Academic Success → Long-Term Student Well-Being. Moderating variables intersect each link.

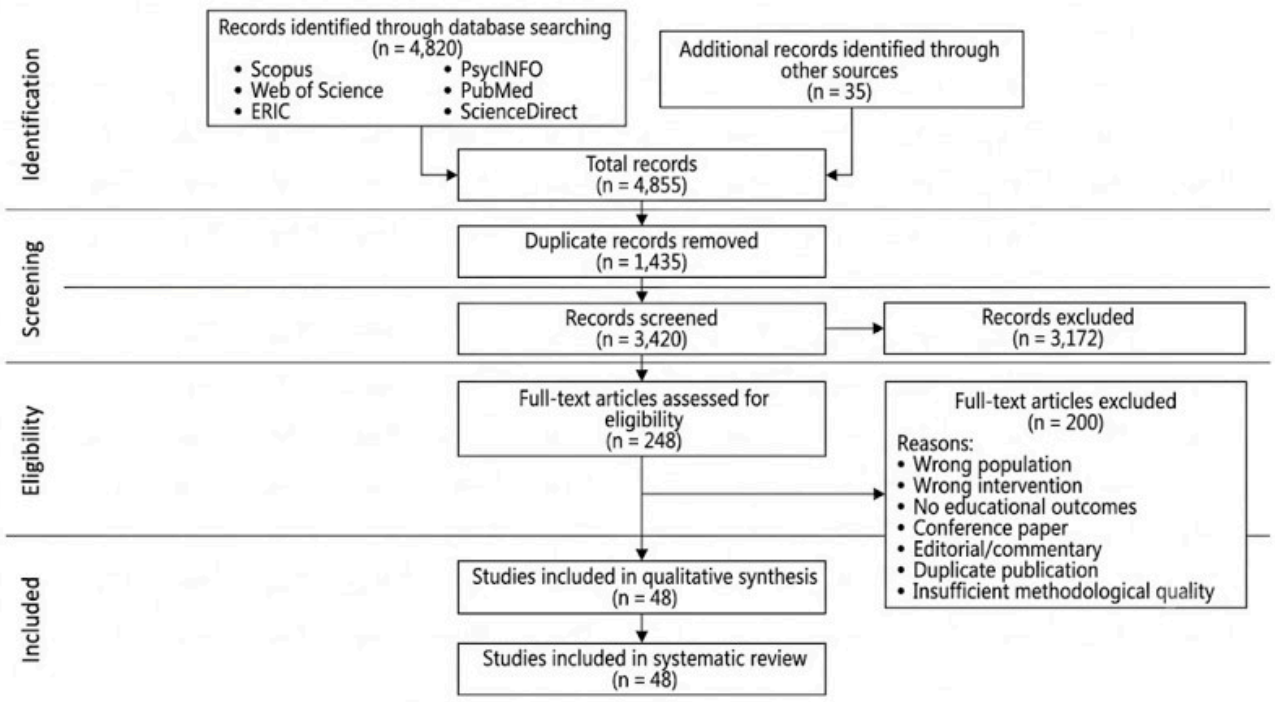
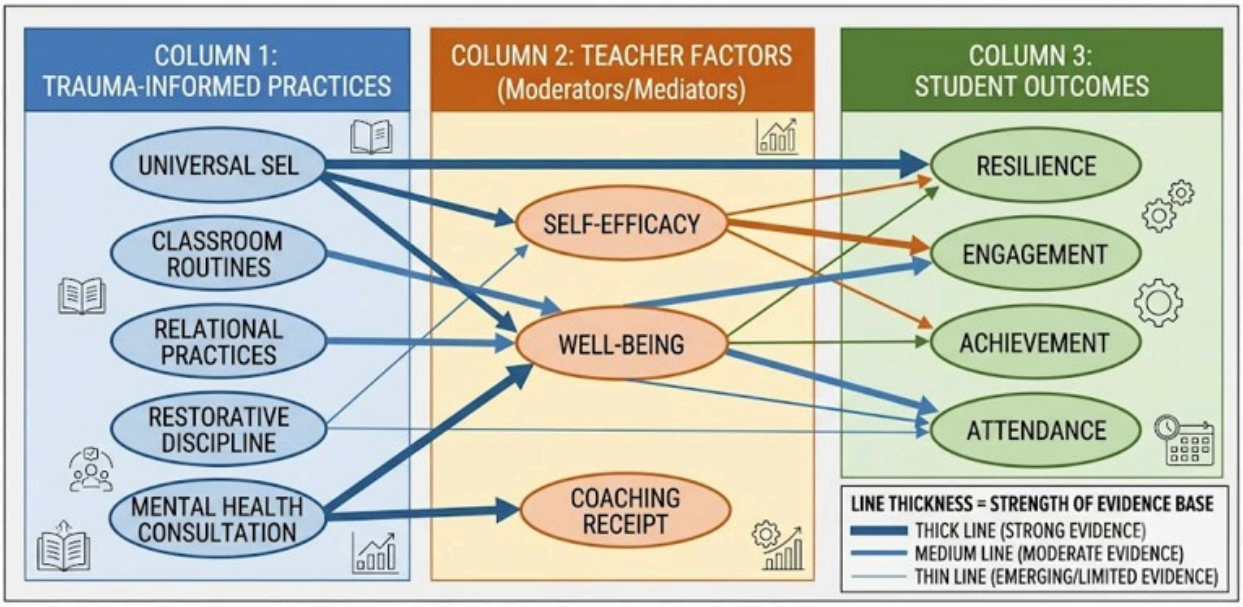


Figure 3

PRISMA 2020 Flow Diagram. Identification (n ≈ 4,820 records from database searches, n ≈ 35 from other sources); Screening after deduplication (n ≈ 3,420 records screened); Eligibility (n ≈ 248 full-text articles assessed); Included (n = 48 studies). Source: PRISMA 2020 standard template(Page et al., 2021)

Figure 4. Evidence Map



Source: bibliometric synthesis by the author.

Figure 4

Evidence Map. A graphical depiction of relationships among trauma-informed practices (universal SEL, classroom routines, relational practices, restorative discipline, mental health consultation), teacher factors (self-efficacy, well-being, coaching receipt), and student outcomes (resilience, engagement, achievement, attendance). Line thickness represents the strength of the evidence base for each relationship