Australian Journal of Teacher Education

Volume 48 | Issue 3 Article 6

2023

How is Trauma-Informed Education Implemented within Classrooms? A Synthesis of Trauma-Informed Education Programs

Jacolyn Norrish
Berry Street Victoria

Tom Brunzell
University of Melbourne, Berry Street Victoria

Recommended Citation

Norrish, J., & Brunzell, T. (2023). How is Trauma-Informed Education Implemented within Classrooms? A Synthesis of Trauma-Informed Education Programs. *Australian Journal of Teacher Education, 48*(3). https://doi.org/10.14221/1835-517X.6159

How is Trauma-Informed Education Implemented within Classrooms? A Synthesis of Trauma-Informed Education Programs

Jacolyn Norrish
Berry Street Victoria
Tom Brunzell
University of Melbourne
Berry Street Victoria

Abstract: The purpose of this study was to synthesise the content of trauma-informed education programs with a focus on classroom strategies. Programs (N = 20) were identified that focused on primary and secondary schools and were suitable for application in the classroom by teachers. Program materials available in the public domain were collated and the qualitative research method of reflexive thematic analysis was used to explore commonalities and themes in classroom strategies across different approaches. Classroom strategies were aimed at meeting students' somatic (i.e., 'bottom-up') capacities of safety needs, self-regulatory needs, sensory needs, and relational and attachment needs. Classroom strategies also focused on supporting students' psychological (i.e., 'top-down') capacities of social and emotional learning needs, academic and learning needs, voice and empowerment needs, strengths needs, and cultural needs. Recommendations for future research and practice in the paradigm of trauma-informed education include an increased focus on teacher instruction and prioritising how trauma-informed education can be tailored to meet the needs of a diverse range of students.

Introduction

This study contributes to the growing recognition of the importance of addressing the enduring impact of early experiences of adversity on students' ability to learn at school. Schools serve as unique opportunities to provide nurturing and healing experiences for students and mitigate the impact of trauma across the life course. Trauma-informed education (and related terms of trauma-sensitive education and trauma-aware education) supports educators to understand, act, and respond in ways that help to alleviate the impact of trauma on students (Howard et al., 2022). As a proactive whole-school practice response to the impacts of trauma on learning, researchers, practitioners, and peak bodies have urgently acted to build the evidence base for trauma-informed education (see, for example, Brunzell et al., 2018; Chafouleas et al., 2016; Howard et al., 2022).

At least twelve literature or systemic reviews have been published in the field of trauma-informed education in recent years (see Avery et al., 2020; Bagneris et al., 2021; Berger, 2019; Blodgett & Dorado, 2016; Fondren et al., 2020; Maynard et al., 2019; Melz et al., 2019; Miller &

Berger, 2020; Stratford et al., 2020; Thomas et al., 2019; Yohannan & Carlson, 2018; Zakszeski et al., 2017). For example, a scoping review by Stratford et al. (2020) identified 91 publications that covered a range of trauma-informed education components including counselling services, skill development, and teacher psychoeducation. They found varying levels of rigour across the studies included in the review and recommended a future focus on high-quality research and ensuring evidence is accessible to policymakers and school staff. In another example of a recent contribution, Fondren et al. (2020) conducted a systematic review of trauma-informed interventions and found 62 studies that were organised around multi-tiered frameworks (Tier 1 or universal interventions focused on meeting the needs of all students, Tier 2 or targeted intervention programs for students at-risk, and Tier 3 interventions for students with complex needs). These authors highlighted a lack of evidence as to how multi-tiered frameworks can be applied in schools and proposed recommendations on how trauma-informed practices can be integrated across the whole school community.

While literature and systematic reviews offer valuable insights, they do not provide an in-depth exploration of the content of trauma-informed education programs. As such, there is little consensus or synthesis as to what trauma-informed education looks like in the classroom. This lack of synthesis is noteworthy as numerous trauma-informed programs have been developed from different conceptual foundations and via vastly different pathways. For example, the Trust-Based Relational Intervention (Purvis et al., 2013) grew out of the success of a summer camp for adopted and fostered children. The results of the camp indeed showed promising outcomes and so the facilitators developed the Trust-Based Relational Intervention that has since been used extensively across contexts including schools.

In contrast, the Trauma and Learning Policy Initiative (n.d.) was developed out of the school expulsion crisis in Massachusetts in the 1990s and Professor Susan Cole's concern when working on a helpline about a pattern of violence and instability experienced by students being excluded from schools. Cole and colleagues at the Massachusetts Advocates for Children pioneered a vision along with recommendations for schools as warm, nurturing environments where students were supported to have a sense of belonging and success. As another example, Thoughtful Schools, an Australian program, was developed recently via a thematic analysis plus a Delphi study where experts in the field provided recommended strategies for trauma-informed education (Martin et al., 2021). In summary, the intention and goals of trauma-informed education programs may appear similar. However, the content and application can be vastly different in terms of the strategies programs provide educators.

This heterogeneity of conceptual and developmental underpinnings leads to complexities for researchers looking to progress the evidence base for trauma-informed education, as well as ambiguity for educators looking to implement trauma-informed approaches in the classroom. In an earlier study to synthesise different approaches, Brunzell et al. (2016) conducted a systematic review to capture the content of trauma-informed education programs. They identified 29 papers published in the years between 1994 and 2015 and summarised that trauma-informed education focused on two approaches: (1) increasing regulatory capacities and addressing dysregulated stress response systems, and (2) increasing attachment-informed interactions formed through strong teacher-student relationships. Brunzell et al. (2016) also advocated for the integration of strengths-based approaches that focus on building upon students' strengths and enhancing their psychological capacities.

Mirroring the recommendations by Brunzell et al. (2016) to integrate both healing and strengths-based approaches, is a focus on bottom-up and top-down behaviours within trauma-

informed education. Bottom-up or somatic behaviours are helpfully described as reflexive, automatic behaviours driven by the body and the stress response (Delahooke, 2020). Top-down behaviours describe when students' thinking selves are in control and allow for intentionality and planning (Siegel & Payne Bryson, 2011). Comprehensive trauma-informed education frameworks address both students' needs for bottom-up regulation and safety and their needs for top-down learning and growth (Norrish & Brunzell, 2021).

Overall, while review studies capture the state of the evidence, they do not provide depth of insight into what trauma-informed education entails. Driven by this gap, the purpose of this study was to explore and analyse trauma-informed education programs with a focus on classroom strategies. To create depth of exploration, this study drew on the qualitative research method of reflexive thematic analysis (Braun & Clark, 2022) to analyse the frameworks, materials, and descriptions of numerous trauma-informed education programs.

Method

Reflexive thematic analysis was chosen as a method for generating patterns and meaning from qualitative data (Braun & Clarke, 2022). Leaders in the field, Braun and Clarke (2022) explain that a strength of reflexive thematic analysis is its flexibility; while it is primarily used with data from human participants (such as interviews and focus groups), it can be used in a range of data sets. In this case, reflexive thematic analysis has been applied to explore the resources, frameworks, and materials of a range of trauma-informed education programs. Reflexive thematic analysis was also selected due to its inductive nature to explore emerging phenomena or paradigms, wherein themes are generated from the data rather than identified from previously-established frameworks or theories (Braun & Clarke, 2022).

Reflexive thematic analysis is a subjective and interpretive process and theme generation is understood to occur at the intersection of the data and the researchers' own subjective experience, skills, prior training, and theoretical frameworks (Braun & Clarke, 2022). With this in mind, it is important to acknowledge the biases in the development and interpretation of this study's findings from the study's authors, both who are researchers and practitioners who have been working within the field of trauma-informed education for more than 10 years, and are among the co-authors of the Berry Street Education Model (Brunzell et al., 2015) a trauma-informed, strengths-based approach to whole-school practice. Furthermore, the researchers of this study acknowledge their biases towards strengths-based frames to trauma-informed education and aim for culturally-responsive approaches to school-based change. While the authors' subjectivity is acknowledged as a resource to provide analytical insight, the method calls for frequent dependability and confirmability checks throughout data analysis and interpretative steps.

Inclusion Criteria

The initial stage of this research was to identify suitable programs for inclusion. Programs were included if they focused on trauma-informed, trauma-aware, trauma-sensitive, or trauma-responsive education. Programs focused on general mental health or social and emotional learning were not included. To capture current evidence-informed and evidence-based programs,

trauma-informed interventions were included if they were evaluated or explored in the peer-reviewed literature, referenced in recent literature reviews, had publicly retrievable evaluation reports, or were seminal developments that have been widely referenced across the field. Articles were included if they were published since 2015; this year was chosen to build upon Brunzell et al.'s (2016) previous systematic review of themes evident in the trauma-informed education literature. In some cases, recently developed programs were included if an extensive evaluation project was underway and associated evaluation activities were already documented within the literature. It is important to note that the evidence for trauma-informed education is in the formative stages and requires more high-quality and longitudinal research studies. However, as Howard et al. (2022) identify, the field of trauma-informed education is building quickly to meet the pressing needs of schools, and if only peer-reviewed reports are viewed as credible sources, advancements in innovation and integration may be missed in this emergent paradigm.

Trauma-informed programs were included if they were designed to support primary or secondary school students. Trauma-informed practice in early childhood, preschool, or university settings were deemed outside the scope of the current project. Similarly, programs were included if they were delivered by a qualified teacher with their students as a universal, whole-class or whole-school approach. Selective or treatment interventions that required screening for at-risk students and were delivered by a psychologist or specialised mental health care professional were not included. For example, programs delivered over numerous weeks by a mental health professional including Bounce Back (Langley et al., 2015), Cognitive Behavioral Intervention for Trauma in Schools (Jaycox et al., 2018), RAP Club (Mendelson et al., 2015), The Resilience Classroom Curriculum (Ijadi-Maghsoodi et al., 2017), and Trauma-Focused Cognitive Behavioral Therapy (Fitzgerald & Cohen, 2012) were not included because program guidelines stipulated these could only be delivered by qualified mental health professionals, not teachers. Trauma-informed programs designed for delivery after a natural disaster or humanitarian crisis were considered for inclusion, however, only one of these programs (ERASE Stress; Berger et al., 2016) met the previously established criteria (and was therefore included) as most of these programs are not designed for delivery in the classroom by teachers. In summary, the current study prioritised teacher-delivered strategies as a Tier 1, universal approach which did not require specialist training beyond what the program itself contained.

Identification of Programs for Analysis

The primary method of identifying trauma-informed education programs was ancestry searches; specifically, the reference lists of the twelve aforementioned literature reviews as well as multiple conceptual papers were checked for suitable programs. This resulted in a list of over 200 potential articles on trauma-informed education published between the years 2015 and 2022. The abstracts of these articles were assessed for suitability and, from this list, 49 potential trauma-informed education programs were identified. From the list of 49 programs, 29 programs were deemed to be outside the inclusion criteria due to being: treatment programs requiring delivery by mental health professionals, interventions focused on mental health or social and emotional learning which did not specifically reference trauma, or programs focused on early childhood settings. The result was 20 programs deemed suitable for inclusion. Information on the trauma-informed education programs included in the analysis, including their conceptual frameworks and key references, is presented in Table 1.

Phases of Reflexive Thematic Analysis

Once the programs were identified, information on the content of the programs was collated for the reflexive thematic analysis. Information on trauma-informed education programs available in the public domain, including information on websites, program manuals, program guidebooks, lesson plans, and research papers were reviewed and collated. Programs varied significantly in terms of how much information was available in the public domain, from full program manuals freely available to limited materials provided without participating in specialised training. However, despite this variation, it was deemed that sufficient material was available across the programs included to form a meaningful part of the analysis.

In preparation for data analysis, summaries, extracts, and examples from the 20 trauma-informed programs were collated and used to create a core data set. Once the data set was collated, the six phases of reflexive thematic analysis recommended by Braun and Clarke (2022) were used to analyse the data and generate themes: familiarisation with the data, coding the data, generating initial themes, reviewing and developing themes, refining and naming themes, and writing the results. Importantly, Braun and Clarke (2022) refer to these as phases rather than steps or stages as analysis is a flexible and iterative process, with continual movement back and forward between different phases.

The first phase is familiarisation with the data. Here, the core data set formed the basis of deep engagement with the data as it was read and reread numerous times. The researchers also found themselves frequently going between this data set and the primary sources such as websites and program manuals to gather more information or gain context. In the second phase of analysis, codes were assigned to parts of the data identified as significant to the research question. For example, codes included attending to students' attachment needs, having unconditional positive regard for students, being a relationship coach, and so on. Coding was primarily conducted by the first author, with ongoing communication and consultation with the second author to gain depth of insight and exploration. Once the entire data set was coded, the codes were organised into preliminary themes and a thematic map was created (phase three). In the above example, these three codes were organised together as focused on students' attachment needs and teacher-student relationships. In phase four, clusters of codes represented on the thematic map were reviewed, discussed between the researchers, and further developed with the focus on creating an overall narrative that meaningfully represented the research topic. Phase five involved the refining and defining of themes as well as generating names that reflected each theme. In the example provided here, the cluster of codes was named 'relational and attachment needs.' In phase six, theme summaries were written with attention to selecting compelling examples from across the data set to represent the scope of each theme.

Results

The purpose of this research was to explore topics covered by trauma-informed education programs with a focus on classroom strategies. The topics covered by the 20 trauma-informed education programs were identified as meeting the needs of students in nine interconnected areas and organised around bottom-up and top-down capacities. Within bottom-up capacities, students' safety needs, self-regulatory needs, sensory needs, and relational and attachment needs were identified. Within top-down capacities, students' social and emotional learning needs, academic

and learning needs, voice and empowerment needs, strengths needs, and cultural needs were noted. The study's nine themes are summarised in Table 2.

Program	Summary	Conceptual Framework	References
Attachment, Regulation and Competency Model (ARC). Also referred to as Trauma-Informed Elementary Schools (TIES) when used in school settings.	ARC was developed for children and adolescents who have experienced complex trauma. It has been applied in a range of school, community, and residential settings both within the USA and internationally.	ARC has three core domains: Attachment: strengthening relational supports around the child. Regulation: enhancing students' capacity in understanding and regulating their physiological states and internal experiences. Competency: building students' resiliency and competencies.	Attachment, Regulation, and Competency Framework (n.d.); Kinniburgh et al., (2005); Rishel et al., (2019).
Berry Street Education Model (BSEM), a trauma-informed, positive education approach.	BSEM focuses on strengths-based, trauma-informed classroom strategies for supporting student healing, growth, and academic learning.	BSEM has five domains: Body: increasing students' capacity for physical and emotional regulation. Relationship: nurturing healing through strong attachments at school. Stamina: creating a culture of high expectations and academic persistence. Engagement: motivating students with strategies that increase their willingness to learn. Character: nurturing values and character strengths to create pathways for growth.	Brunzell et al. (2015); Brunzell et al. (2016); Stokes and Brunzell (2019).
Collaborative Learning for Educational Achievement and Resilience (CLEAR).	CLEAR is a trauma-informed three or four-year systems change process targeting classroom practice, school culture, and policies.	CLEAR incorporates trauma-informed systems change theory with the ARC framework of attachment, regulation, and competency.	Blodgett and Dorado (2016); Collaborative Learning for Educational Achievement and Resilience (n.d.).

Culturally-Informed Sanctuary Model (CISM)/Sanctuary Model.	CISM is a culturally-responsive adaptation of the Sanctuary Model of trauma-informed practice.	CISM includes six underpinning principles: Adopt a social-emotional lens. Know the students; develop cultural responsiveness. Reorient discipline from punishment to opportunities to teach desired behaviour. Resist criminalising behaviour. Maintain an inclusive and nurturing work environment. Address culture in the school.	Blitz et al. (2016; 2020); Bloom (1995).
Enhancing Resiliency Amongst Students Experiencing Stress (ERASE Stress).	ERASE Stress is designed as a series of 90-minute sessions suitable for application in the classroom and comes in 12 and 16-week versions.	Some examples of the ERASE Stress topics include: Strengthening your personal resources. Becoming aware of your body. Knowing your feelings. Combating fears. Dealing with anger and rage. Coping with grief and loss. Building a social shield. Seeking a better future.	Berger et al. (2016)
Healthy Environments and Response to Trauma in Schools (HEARTS).	HEARTS aims to create safe and supportive trauma-informed school environments that nurture wellbeing, engagement, learning, and resilience	HEARTS has six trauma-informed principles: Understanding stress and trauma.	Dorado et al. (2016). HEARTS (2022).

	for all members of the school community.	Cultural humility and equity. Safety and predictability. Compassion and dependable relationships. Empowerment and collaboration. Resilience and social and emotional learning.	
Heart of Learning and Teaching (HLT).	Based on ecological and attachment theories, HLT focuses on multiple levels of school systems, including professional development for staff, staff self-care, curriculum strategies and resources, and school-community partnerships.	The six principles of HLT are: Always empower, never disempower. Provide unconditional positive regard. Maintain high expectations. Check assumptions, observe and question. Be a relationship coach. Provide opportunities for helpful participation.	Wolpow et al. (2016).
Missouri Model for Trauma-Informed Schools.	The Missouri Model is a developmental process supporting schools to move from trauma aware to trauma-informed with the goal of understanding and addressing trauma at all levels of the organisation.	The Missouri Model has five key principles: Safety: ensure physical and emotional safety. Trustworthiness: foster genuine relationships. Choice: maximise choice and address how privilege and power impact decision-making. Collaboration: nurture collaboration and prioritise shared decision-making. Empowerment: encourage self-efficacy	Missouri Department of Elementary and Secondary Education (2019).

		and building strengths and skills.	
National Child Traumatic Stress Network (NCTSN).	The NCTSN is a professional network across the USA and is focused on supporting children and families who have experienced trauma. It includes an extensive range of services and resources including a framework for trauma-informed schools.	NCTSN's trauma-informed schools' framework is organised around four Rs: Realising the impact of trauma and pathways to recovery. Recognising the signs and symptoms of trauma and stress. Responding and integrating trauma-informed principles into all levels of schools. Resisting the re-traumatisation of trauma-impacted individuals.	National Child Traumatic Stress Network (2017a).
Neurosequential Model of Education (NME).	The NME is a neurodevelopmentally-informed, biologically respectful approach to addressing childhood trauma.	NME aims to bring six Rs to the classroom: Relational (safe). Relevant (developmentally matched). Repetitive (patterned). Rewarding (pleasurable). Rhythmic (resonate with biology). Respectful (of the child, family, and culture).	Perry (n.d.).
New Haven Trauma Coalition (NHTC).	NHTC is a core logic model with the mission of reversing the negative impact of trauma and adversity on families and children.	The four NHTC service domains are: Professional development. Care coordination. Coalition network and infrastructure.	Perry and Daniels (2016).

		Assessment, screening, and intervention for at-risk students.	
Reframing Learning and Teaching Environments (ReLATE).	ReLATE, developed by the MacKillop Institute, supports school systems to create the conditions for improved teaching, learning, and wellbeing.	ReLATE has four foundational concepts: Safety. A counter-stress school environment. Enhanced teaching and learning. Sustainable whole-school cultural change.	Avery et al. (2021); MacKillop Insitute (n.d.).
Supportive Trauma Interventions for Educators (STRIVE).	STRIVE is a collaborative partnership between Boston Medical Center Child Witness to Violence Project, Boston Public Schools, and the Vital Village Network. STRIVE uses an evidence-based trauma-informed model to enhance the quality of teacher-student relationships and improve student success.	STRIVE includes the following area of focus: Building the capacity of teachers to support students by enhancing their understanding of trauma. Promoting trauma understanding and social-emotional awareness of caregivers and parents. Mobilising community-based resources and creating a comprehensive network of services for children and families.	McConnico et al. (2016); Vital Village (n.d.).
The Thoughtful Schools Program.	The Thoughtful Schools Program, developed at the University of Western Australia, is a toolkit for schools to become adversity and trauma-informed.	Thoughtful Schools has four overarching principles: Student-focused: the school prioritises the needs of students. Understanding and responsive: the school is culturally, socially and emotionally responsive.	Martin et al. (2021); Thoughtful Schools Program (n.d.).

		Models compassion and empathy: the school honours compassion, empathy, caring and generosity. Ethos incorporates First Nation's Peoples: the school incorporates the culture and experiences of the traditional custodians of the land.	
Trauma and Learning Policy Initiative (TLPI).	The TLPI is a collaboration between Massachusetts Advocates for Children and Harvard Law School with the mission of ensuring children affected by family violence and adversity succeed in school.	The TLPI has a flexible framework with six domains: Leadership. Professional development. Access to resources and services. Academic and non-academic strategies. Policies and protocols. Collaboration with families.	Atallah et al. (2019); Cole et al. (2005).
Trauma-Informed Approach (TIA).	The TIA is a case study of a trauma-informed approach in a school focusing on the creation of a safe, supportive community and caring relationships.	The TIA is described as having five components: School-wide relationships. Structure and stability. Shared control. Self-regulation. Social-emotional learning.	Giboney Wall (2021; 2022).
Trauma Smart (also known as Head Start Trauma Smart).	Developed at the Crittenton Children's Center, Trauma Smart is aimed at children aged 0 to 12. Trauma Smart focuses on building a trauma-informed community with	Trauma Smart integrates the ARC concepts of attachment, regulation, and competency within a trauma-informed organisational culture change model.	Orapallo et al. (2021); Trauma Smart (n.d.).

	the skills to help children affected by trauma to succeed in life and school.		
Trust-Based Relational Intervention (TBRI).	TBRI grew out of a summer camp in 1999 for adopted children and is an attachment-based, trauma-informed intervention designed for meeting the complex needs of children who have experienced adversity. It is suitable for use in a range of settings including schools.	TBRI comprises three principles: Empowerment: attention to physical needs. Connection: attention to attachment needs. Correction: attention to behavioural needs.	Purvis et al. (2013); Karyn Purvis Institute of Child Development (n.d.).
Trauma Responsive School Project (TRSP).	The TRSP is a three-phase process for delivering trauma-informed training, support, and coaching across a school community.	TRSP focuses on three levels: Strategies focused on creating a positive school community and building social and emotional wellbeing across the school. Strategies supporting students' emotional regulation in the classroom. Strategies supporting students with complex needs in counselling settings.	King and Scheidegger (2018).
Trauma-Sensitive Schools.	The Trauma-Sensitive Schools framework was developed by the National Centre on Safe Supportive Learning Environments and aims to provide a roadmap for understanding trauma and promoting resilience across the school community.	Trauma-Sensitive Schools focus on three components: Understanding trauma and its impact. Building trauma-sensitive schools. Leading trauma-sensitive schools.	Guarino and Chagnon (2018); National Centre on Safe Supportive Learning Environment (n.d.).

Table 1: Trauma-informed education programs

Bottom-up capacities	Top-down capacities
Safety needs	Social and emotional learning needs
Self-regulatory needs	Academic and learning needs
Sensory needs	Voice and empowerment needs
Relational and attachment needs	Strengths needs
	Cultural needs

Table 2: Classroom strategies representing student bottom-up and top-down capacities

Bottom-up Capacities

Safety Needs

The themes organised under the umbrella category of bottom-up capacities focused on ensuring students feel safe and regulated in their bodies. Across all of the trauma-informed education programs reviewed, there was a consistent focus on meeting students' needs for physical, emotional, cultural, and relational safety. Safety is integral to trauma-informed education as students who have experienced early trauma, stress, and adversity may experience the world as an unpredictable and unstable place (National Child Traumatic Stress Network, 2017a). From a trauma-informed perspective, it is understood that experiencing a sense of trust and safety is inherently healing for children and young people. Furthermore, safety is also integral to learning and relationships; it is difficult for students to learn or connect with others when they are in a highly stressed state. Importantly, when discussing the Trust-Based Relational Intervention, Purvis et al. (2013) make the distinction between children being safe and feeling safe. That is, it is important for educators to be mindful that children who have experienced trauma and adversity may feel a sense of danger and threat even when they are in safe environments at school.

A focus on safety was evident across all of the programs reviewed, however, the classroom strategies for meeting students' safety needs were varied. Giboney Wall (2022) explains that structure and stability at school are invaluable and may be especially important for students who may experience unstructured, chaotic, or unstable environments at home. ReLATE prioritises safety as a foundational concept (MacKillop Institute, n.d.). Children feel safe when they have the internal and external resources to cope with stressors and challenges (MacKillop Institute, n.d.). Numerous programs focused on building safety by ensuring classrooms are places of predictability and consistency (Giboney Wall, 2022; Purvis et al., 2013). Clear expectations and consistent boundaries were another important consideration when meeting students' needs for safety (Wolpow et al., 2016).

Another strong focus across trauma-informed education approaches is ensuring children feel safe during transitions, including attending to safety during the smaller transitions in each school day as well as larger transitions such as between year levels or from primary to secondary settings (Cole et al., 2005; Purvis et al., 2013). Other programs explicitly focused on *triggers* where educators identify different situations or stimuli that activate an escalated stress response in students and create plans for minimising exposure to triggers or responding with care and empathy if students do become dysregulated (Rishel et al., 2019; Wolpow et al., 2016).

Another consideration when supporting students' need for safety is ensuring schools or classrooms do not traumatise or retraumatise students (National Child Traumatic Stress Network, 2017a). Here, it is recognised that bullying, shame or humiliation, and punitive or exclusionary discipline approaches may have ongoing adverse impacts on students. Similarly, classroom or

school environments that are chaotic, unpredictable, or overwhelming may exacerbate students' trauma symptoms. The Missouri Model espouses the importance of considering students' intersectional cultural, gender, racial, and religious identities when considering issues of student emotional and physical safety (Missouri Department of Elementary and Secondary Education, 2019). This focus exemplifies that some cohorts of students may be at greater risk of feeling unsafe at school and that safety is not only physical, but also cultural, psychological, social, and ethical.

Self-Regulatory Needs

Meeting students' needs of the body and building their self-regulatory capacities was a consistent focus across the trauma-informed education programs reviewed. Several programs highlighted the importance of ensuring students' basic physical needs were met, including the need for nutrition, physical activity, and sunlight (Martin et al., 2021; Purvis et al., 2013). Inherent in this approach is empathy for how difficult it may be for students to thrive at school when they are hungry, tired, or in need of a break for physical movement. As an example, Giboney Wall (2021) recommends strategies for meeting students' physical needs such as having emergency snacks in the classroom, allowing naps as needed, and allowing students to take walks in the fresh air.

Trauma-informed approaches recognise that students who have experienced trauma and adversity may have dysregulated stress response systems (Perry, n.d.). Exemplifying this, the Attachment, Regulation, and Competency domain of regulation (also referred to as self-regulation) focuses on building students' capacities in identifying, accepting, and managing their internal experiences and physiological states (Rishel et al., 2019). Several trauma-informed programs focus on providing students with psychoeducation on stress and equipping them with strategies for managing their stress responses. For example, in the New Haven Trauma Coalition (Perry & Daniels, 2016), students completed a workshop series providing strategies for recognising stress in themselves and others as well as coping and relaxation skills. Other trauma-informed education programs have mindfulness as an underpinning conceptual framework and pathway for calming the stress response in times of escalation or distress. For example, the Trauma Responsive School Project (King & Scheidegger, 2018) integrates mindfulness in classrooms and across the school community with specific strategies including yoga, drumming, meditation, music-rhythmic activities, breathing exercises, imagery and accessing mindfulness tools and supports.

Sensory Needs

Many trauma-informed education programs focus on supporting students' sensory needs and integration. A common theme across these programs is a shift in awareness as teachers move from punishing a student for meeting their sensory needs in ways perceived as unhelpful or disruptive, to facilitating and encouraging regular opportunities for sensory-integration experiences. For example, rather than reprimanding a student who is struggling to sit still, the teacher may provide sensory supports (e.g., allowing them to have a fidget tool in their hand as they learn) or schedule regular opportunities to move, often called brain breaks in classrooms; (Brunzell & Norrish, 2021). McConnico et al. (2016) describe a STRIVE classroom toolkit that

includes a range of somatosensory supports (i.e., strategies and tools to enhance integrated sensory stimuli processing) including weighted lap pads, calming scents, low-pitched white noise, noise-cancelling headphones, therapeutic putty, and kinetic sand. Weighted items such as weighted blankets, vests, and toys can be used to provide students who are experiencing stress, anxiety or distress with deep pressure that helps to calm and soothe them (Karyn Purvis Institute of Child Development, 2015). Another classroom strategy is offering calm corners, regulation spaces, or 'zen dens' wherein students who are feeling dysregulated can go to receive soothing sensory input and the time and space to self-regulate in nurturing and non-punitive ways (King & Scheidegger, 2018; Wolpow et al., 2016).

Relational and Attachment Needs

Nurturing relationships and secure attachments play an essential role in meeting the needs of children and young people who have experienced trauma, and this priority was evident across all programs included in the reflexive thematic analysis. Inherent in trauma-informed approaches is the recognition that students who have experienced early trauma and adversity may have unmet relational needs and disrupted attachments. As such, educators have a unique opportunity to provide students with consistent and nurturing interactions as well as role modelling care, consistency, and healthy relational interactions (Perry, n.d.; Purvis et al., 2013). The importance of nurturing attachments to healing is given priority in Trauma-Sensitive Schools that "healing happens in relationships" (National Centre on Safe Supportive Learning Environments, n.d., p. 2). Further, an overarching philosophy of the Heart of Learning and Teaching is for teachers to "maintain healthy boundaries with compassion" (Wolpow et al., 2016, p. 71). That is, to support students with firm and consistent expectations as well as warmth and kindness.

Across the programs reviewed, strategies for meeting students' relational and attachment needs were varied. The Trust-Based Relational Intervention has a focus on educators' observational awareness as a pathway to healing relationships. That is, teachers are supported to recognise the early signs of stress and anxiety in students and respond to students in ways that are soothing, regulatory, and tailored to the student's current state (Purvis et al., 2013). The Berry Street Education Model has a strong focus on co-regulation or helping students to de-escalate through maintaining a safe and nurturing adult presence (Brunzell et al., 2015). The Berry Street Education Model and the Heart of Learning and Teaching also focus on unconditional positive regard for students and advocate for showing genuine respect for students as well as empathising with their unique needs and experiences (Brunzell et al., 2015; Wolpow et al., 2016).

Top-down Capacities

Social and Emotional Learning Needs

The remainder of the themes identified focus on students' top-down regulatory capacities that require access to intentional thought and planning for learning. As an overarching theme, top-down regulation requires a well-regulated 'thinking-self' wherein one can listen, learn, and act in an integrated way. For top-down strategies to work for students, they must have a strong foundation of 'bottom-up' regulation within their own bodies and de-escalation of elevated stress responses when learning. For example, many programs integrate social and emotional learning

capacities within their trauma-informed approaches which require students to understand and utilise higher-order thinking and reflection capabilities. Social and emotional learning is defined as helping students to develop healthy and positive self-identities, regulate emotions, pursue meaningful goals, cultivate empathy for others, build supportive relationships, and make responsible and caring decisions (Collaborative for Academic, Social and Emotional Learning, 2020). For example, the Heart of Learning and Teaching (Wolpow et al., 2016) has the domain of improving behavioural and emotional self-regulation and uses storytelling and role-modelling to help students develop a vocabulary of feelings where they can learn to recognise and name emotions. Similarly, Giboney Wall (2021) emphasises the power of teaching students to name their emotions, identify their bodily responses (such as increased heart rate), and understand the connection between external events and habitual responses.

Academic and Learning Needs

Numerous programs focused on psychoeducation aimed at empowering educators with a greater understanding of the impact of trauma on learning and cognitive development. Wolpow et al. (2016, p. 3) use the analogy of trying to learn while in a state of internal dysregulation with "trying to play chess in a hurricane." That is, it can be difficult for students to have the attentional or memory capacities to focus on their learning when they are escalated, dysregulated or not feeling safe in their environments. Consistent with the importance of meeting students' learning needs, ReLATE has "enhanced teaching and learning" as a foundational concept (Avery et al. 2021, p. 772).

While many programs emphasised the importance of learning, few programs deliberately focused on trauma-informed strategies for instructional delivery or provided strategies for the pedagogical aims of teachers. In some examples, Cole et al. (2005) recommended identifying students' areas of competence, both in academic and non-academic areas, as pathways to viewing children holistically and supporting their wellbeing and learning. The Berry Street Education Model has a consistent focus on students' learning needs, with the domains of stamina and engagement explicitly providing strategies to enhance students' on-task academic learning skills and pedagogical practice suggestions to structure lesson delivery of academic content (Brunzell et al., 2015). In stamina, there is a focus on empowering students to persist towards academic goals through cultivating growth mindsets and resilient thinking and by building on incremental success each day. Specific tools include visible stamina graphs (which students complete and reflect upon themselves for forward goal setting) that track students' capacity to remain on task in the classroom. The focus of engagement is cultivating students' interest and absorption in their learning through understanding motivation, flow, interest and the role of positive emotions when structuring lessons.

Voice and Empowerment Needs

Notable across programs was a focus on empowering children and young people by facilitating opportunities for student agency and voice. This focus on voice and empowerment recognises trauma, stress, and adversity can lead to a loss of control and feelings of hopelessness and powerlessness for children and young people. For example, the Missouri Model recommends children and young people of all ages are given developmentally-appropriate and meaningful

leadership opportunities and are included in all levels of decision-making within the classroom and school (Missouri Department of Elementary and Secondary Education, 2019). Similarly, the Thoughtful Schools Program advocates for specific strategies for incorporating student voice into planning and goal setting, including regular focus groups with students and including students on school councils (Martin et al., 2021).

Strengths Needs

Some trauma-informed education programs recognise students need explicit opportunities to identify and develop their strengths-based capacities. For example, the Attachment, Regulation and Competency framework emphasises the importance of students developing their strengths and becoming empowered, resilient, and future-orientated once meeting safety needs (Attachment, Regulation, and Competency Framework, n.d.). Similarly, the Missouri Model has building strengths as a key pathway within their empowerment principle (Missouri Department of Elementary and Secondary Education, 2019). The Trauma-Sensitive Schools program recommends a focus on student and family strengths when conducting assessments of students (National Centre of Safe and Supportive Schools, n.d.). Similarly, the Berry Street Education Model recommends building students' psychological resources through embedding positive psychology and positive education strategies with special emphasis on the character strengths of hope and gratitude (Brunzell et al., 2015). The Thoughtful Schools Program has compassion and empathy as priorities and focuses on providing students with opportunities for altruism and community service (Martin et al., 2021). Taken together, a consistent theme is that trauma-informed education involves more than addressing dysfunction and also includes building students' unique strengths and fostering hope for the future.

Cultural Needs

While not evident in all programs, some trauma-informed education programs focus on meeting students' cultural needs through culturally-aware and culturally-responsive pedagogies (see for example King & Scheidegger, 2018). Through this lens, students' own culture, experiences, and intersectional connections are positioned as strengths in their identity formation, contributions and belonging within school communities. Integral to a trauma-informed approach is the recognition that schools bring together students and families of diverse cultural backgrounds. Furthermore, cultural safety is essential to students' experiences of safety and belonging at school.

With the importance of culture in mind, some trauma-informed education programs identify that children and young people must have their culture positively recognised, respected, and viewed as a significant strength they have within their life at school. Beyond tokenistic mention (i.e., simply mentioning a culture's foods or flag) the National Child Traumatic Stress Network (2017b) has a guidebook called, *Addressing Race and Trauma in the Classroom,* which encourages educators to enact a range of strategies including learning about the historical impact of racism, colonisation and historical traumas, creating safe and brave environments for addressing cultural or racial concerns, modelling and supporting authenticity when exploring racial and culture topics, recognising the impact of history and systemic racism, and creating opportunities for cultural safety, healing and leadership within the school community.

Both HEARTS (Dorado et al., 2016) and the Trauma Responsive Schools Project (King & Scheidegger, 2018) advocate for cultural humility when meeting the needs of all students within school communities. Cultural humility is maintaining an other-oriented personal stance and having a strong focus on personal reflection and growth. Furthermore, HEARTS (2022) has an explicit focus on reducing well-acknowledged racial disparities related to punitive approaches at school such as office referrals, suspensions, and expulsion. Also exemplifying a focus on students' cultural needs, the Thoughtful Schools Program encourages staff to reflect upon their own socio-cultural identities and the intersection of their own culture with that of their students (Martin et al., 2021).

Another important aspect of meeting students' cultural needs is the respectful inclusion of First Nations cultures represented locally within the school community. A principle of the Thoughtful Schools Program is that the culture and history of First Nations peoples are incorporated into the school's ethos, with specific strategies such as encouraging First Nations' ways of being and doing into the curriculum and engaging with Elders and communities in respectful and meaningful partnerships towards healing and cultural change (Martin et al., 2021). In another example of the power of culture, ERASE Stress was adapted to the specific New Zealand context (Berger et al., 2016). For example, mental health clinicians of Maori and Pacific Islander descent were engaged to ensure the program materials, goals, content, examples, and language were culturally sensitive and respectful; and the ERASE Stress program was enriched via the use of cultural storytelling, rituals, art, and metaphors.

Discussion

Across the emerging literature, trauma-informed education recognises the significant and lasting impact early adversity has on child development, as well as the unique opportunity schools have to address and mitigate the impact of trauma across the life course. While there have been numerous literature and systemic reviews published recently (e.g., Avery et al., 2020; Bagneris et al., 2021), these reviews highlight great heterogeneity in the field and a lack of consensus as to what trauma-informed education entails. With this in mind, the purpose of this study was to synthesise trauma-informed education programs with a focus on classroom strategies.

Trauma-Informed Classroom Strategies

The focus of this study was the strategy content of trauma-informed education programs, focusing on classroom application. Themes were organised around supporting students in nine interconnected areas and organised around the overarching themes of meeting students' bottom-up (self-regulatory) needs and top-down (thinking) needs. Trauma-informed education programs focused on ensuring children feel safe in the classroom and supported through transitions inherent in life at school. Many trauma-informed education programs prioritised students' unmet needs of the body by providing psychoeducation about the stress response and integrating mindfulness strategies into the classroom. Similarly, students' sensory needs were evident across programs with many strategies focusing on providing students with soothing sensory input and somatosensory supports. Ubiquitous across programs was a focus on meeting students' relational and attachment needs and supporting students with firm yet warm student-teacher connections.

Trauma-informed education programs also focused on top-down strategies. Many programs focused on students' social and emotional learning. Given the convincing evidence that social and emotional capacities are important for all children (Goldberg et al., 2019), this focus on building students' emotional regulatory skills is promising. However, the findings caution educators to ensure that for effective social and emotional learning to occur, students must be centred and de-escalated from the bottom-up within their own regulated bodies. Furthermore, while social and emotional learning is foundational for all students, it is especially important to recall that early adversity and trauma can thwart the healthy development of social, emotional, and cognitive skills and impede the ability to reflect and apply social-emotional skills. This can then compound trauma's negative effects. Osher et al. (2021) caution that without greater consideration of how trauma-informed education and social and emotional learning intersect, efforts to promote both can become fragmented, confusing, or even competing. Overall, the integration of social and emotional learning and trauma-informed education is a priority for future growth.

Notably, a new finding of this study's analysis is that few of the trauma-informed education programs focused explicitly on children's academic and learning needs. This is noteworthy given that trauma has well-established impacts on cognitive functioning and academic achievement (Young-Southward et al., 2020). Despite its importance, it appears that scant attention is deliberately focused on instructional practices (i.e., designing lesson plans, delivery of academic content and deliberate promotion to achieve learning standards) as a priority aim for trauma-informed educational approaches. Nor is there ubiquitous reference to how trauma-informed pedagogies directly inform the design of teaching and learning academic content. Therefore, to truly mitigate the impact of trauma on students' academic trajectories, trauma-informed approaches must go deeper and provide specific, integrated instructional practices for helping students who may have a history of academic struggle to experience success in the classroom. Furthermore, integrating trauma-informed practices within a teacher's core responsibility for pedagogical design and delivery is imperative when galvanising educators to focus on what they are traditionally trained to do within their own qualification pathways towards academic assessment, planning, delivery, and intervention.

Respecting and encouraging students' voice and decision-making capabilities further builds students' top-down regulatory capacities. This focus is encouraging given that many children who have experienced early adversity may experience a sense of powerlessness and may benefit from explicit strategies focused on building their agency and sense of empowerment. Similarly, several programs focused explicitly on nurturing students' strengths and cultivating pathways to growth. As trauma-informed education has traditionally focused on meeting unmet needs, healing students' self-regulatory capacities, and nurturing supportive attachments (Brunzell et al., 2016) it is encouraging to see a greater emphasis placed on building students' strengths and psychological resources. Restated, trauma-informed education must not omit a focus on strengths, both pre-existing within all students and the strengths they can build upon with the support of their teachers.

While not evident across all programs, several programs recognised the importance of culture by ensuring students' cultural backgrounds are viewed as strengths within their classroom and school communities (Blitz et al., 2020). This shift is encouraging and places cultural respect, inclusion, and safety at the heart of trauma-informed approaches. Trauma-informed programs are enhanced through a culturally-informed pedagogy that highlights history, language, stories, and traditions (Berger et al., 2016; Martin et al., 2021). It is also important to mitigate the risk of

schools exacerbating students' trauma through curriculum that is not culturally responsive or disciplinary strategies that disadvantage students of some cultural or racial backgrounds (Blitz et al., 2016; Joseph et al., 2020). Furthermore, encouraging teachers to reflect on their own culture, intersectionality, and inherent biases, while embodying a mindset of cultural humility is a valued pathway towards ensuring cultural safety and respect at school (King & Scheidegger, 2018).

Recommendations for Future Research and Practice

Several recommendations for future practice are noted. As summarised above, the field would benefit from a greater focus on how trauma-informed practices can be integrated within instructional delivery and the integration of what is now known around trauma-informed education with teacher practice within instructional design, engagement with academic content, and assisting students to meet performance standards. Teachers may have even greater engagement with trauma-informed education implementation efforts towards whole-school consistency in their own campuses if they can be shown that such programs provide deliberate strategies for on-task engagement with learning.

Trauma-informed education requires specific development to meet the unique needs of students. In addition to the aforementioned priorities of culturally-responsive pedagogy which must continue as a focus for the field, future research and practice may also consider how trauma-informed education can be tailored to meet the needs of LGBTQIA+ students, who may be at risk of traumatisation or retraumatisation within school communities (Williams et al., 2021). Similarly, there is increasing recognition of the importance of neurodiversity-affirming practice in education to meet the needs of students with attention deficit hyperactivity disorder, autism, dyslexia or other special education needs (Rentenbach et al., 2017). However, thus far the intersection between trauma-informed education and neurodiversity-affirming education is not well understood and is an emerging area of investigation. As such, a priority for future research and practice is to integrate these invaluable but largely disparate fields of inquiry so the needs of all students are better understood in the classroom. Finally, there is a pressing need to explicitly address the needs of students contending with adverse childhood experiences when simultaneously requiring disability and inclusion strategies for learning. While it was beyond the scope of this study to explore trauma-informed education practice and disability (see for example Sansone et al., 2005), there is now a glaring omission of existing trauma-informed education programs to provide targeted guidance to support these students who may benefit from individualised, tailored supports. The growing field of trauma-informed education will do well to build both the practices and evidence of impact to support students who are learning both in mainstream and specialist inclusion classrooms.

Limitations

This study used an innovative approach of drawing upon qualitative research methods to gain a depth of insight into current trauma-informed education frameworks. As reflective thematic analysis is a subjective process, the interpretation of the results is informed by the researchers' experience, beliefs, and preferred frameworks (Braun & Clarke, 2022). As such, it is important to acknowledge potential biases in the selection of programs included or in the identification of codes and themes that may influence the results and interpretation.

This study was limited to information available on trauma-informed education programs available in the public domain (e.g., academic databases, retrievable through websites and the like). As such, programs may have covered topics or areas in more depth than was available in the public domain for their own enrolled participants. However, this study's authors placed special priority on inclusion for programs that have diligently and publicly made available their research and evaluation activities for external validation as a significant threshold indicating program maturity and externally recognised contribution to the emergent paradigm of trauma-informed education.

Conclusions

The field of trauma-informed education is at a nexus. There is significant momentum in terms of recognising the importance of meeting the needs of all students in the classroom, including those who have experienced early stress and adversity. However, this imperative has resulted in a disparate and heterogenous field of practice with many different frameworks and approaches applied. While numerous literature and systematic reviews have been recently published, these studies focus on the state of the research evidence leaving questions about the content of trauma-informed educational approaches unanswered, particularly considering academic review of evidence of impact for trauma-informed education approaches. Motivated by this gap, the purpose of this research was to synthesise themes and commonalities across trauma-informed education programs by drawing from qualitative research methods that provide depth of exploration. Taken together, trauma-informed education programs focus on meeting students' bottom-up (safety, self-regulatory, sensory, relational and attachment) and top-down (social and emotional learning, academic and learning, voice, strengths, and cultural) needs in the classroom. Future research and practice must continue to cross silos of research and practice to meet the needs of all students in the classroom.

Conflict of Interest

The authors declare that they are co-authors on the Berry Street Education Model, one of the 20 programs integrated in the results section of this article. The Berry Street Education model is copyrighted by Berry Street Victoria which is a not-for-profit organisation. The authors of this article do not receive financial or commercial gain for schools using the Berry Street Education Model.

References

Atallah, D. G., Koslouski, J. B., Perkins, K. N., Marsico, C., & Porche, M. V. (2019). *An evaluation of trauma and learning policy initiative's (TLPI) inquiry-based process: Year three.* Boston University, Wheelock College of Education and Human Development.

Attachment, Regulation, and Competency Framework (n.d.). *What is Arc?* https://arcframework.org/what-is-arc/

Avery, J. C., Morris, H., Galvin, E., Misso, M., Savaglio, M., & Skouteris, H. (2020). Systematic review of school-wide trauma-informed approaches. *Journal of Child & Adolescent Trauma, 14*(3), 381-397. https://doi.org/10.1007/s40653-020-00326-w

Avery, J. C., Morris, H., Jones, A., Skouteris, H., & Deppeler, J. (2021). Australian educators' perceptions and attitudes towards a trauma-responsive school-wide approach. *Journal of Child & Adolescent Trauma, 15*, 771–785. https://doi.org/10.1007/s40653-021-00394-6

Bagneris, J. R., Noël, L. T., Harris, R., & Bennett, E. (2021). School-based interventions for posttraumatic stress among children (Ages 5–11): Systematic review and meta-analysis. *School Mental Health*, *13*(4), 832-844. https://doi.org/10.1007/s12310-021-09451-9

Berger, E. (2019). Multi-tiered approaches to trauma-informed care in schools: A systematic review. *School Mental Health, 11*(4), 650-664. https://doi.org/10.1007/s12310-019-09326-0

Berger, R., Abu-Raiya, H., & Benatov, J. (2016). Reducing primary and secondary traumatic stress symptoms among educators by training them to deliver a resiliency program (ERASE-Stress) following the Christchurch earthquake in New Zealand. *American Journal of Orthopsychiatry, 86*(2), 236-251. https://doi.org/10.1037/ort0000153

Blitz, L., Anderson, E., & Saastamoinen, M. (2016). Assessing perceptions of culture and trauma in an elementary school: Informing a model for culturally responsive trauma-informed schools. *The Urban Review, 48,* 520–542. https://doi.org/10.1007/s11256-016-0366-9

Blitz, L., Yull, D., & Clauhs, M. (2020). Bringing sanctuary to school: Assessing school climate for culturally responsive trauma-informed approaches for urban schools. *Urban Education, 55*(1), 95-124. https://doi.org/10.1177/0042085916651323

Blodgett, C., & Dorado, J. (2016). *A selected review of trauma-informed school practice and alignment with educational practice.* Washington State University Extension. https://s3.wp.wsu.edu/uploads/sites/2101/2019/12/Selected-Review-of-Trauma-Informed-School-Practice-2016.pdf

Bloom, S. (1995). Creating sanctuary in the classroom. *Journal for a Just and Caring Education, 1*(4), 403-433. https://eric.ed.gov/?id=EJ519674

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage. https://doi.org/10.53841/bpsqmip.2022.1.33.46

Brunzell, T., Norrish, J., Ralston, S., Abbott, L., Witter, M., Joyce, T., & Larkin, J. (2015). *Berry Street Education Model: Curriculum and classroom strategies.* Berry Street Victoria.

Brunzell, T., Stokes, H., & Waters, L. (2016). Trauma-informed positive education: Using positive psychology to strengthen vulnerable students. *Contemporary School Psychology*, *20*(1), 63-83. https://doi.org/10.1007/s40688-015-0070-x

Brunzell, T., Stokes, H., & Waters, L. (2018). Why do you work with struggling students? Teacher perceptions of meaningful work in trauma-impacted classrooms. *Australian Journal of Teacher Education, 43*(2), 116-142. http://dx.doi.org/10.14221/ajte.2018v43n2.7

Chafouleas, S. M., Johnson, A. H., Overstreet, S., & Santos, N. M. (2016). Toward a blueprint for trauma-informed service delivery in schools. *School Mental Health, 8*(1), 144-162. https://doi.org/10.1007/s12310-015-9166-8

Cole, S. F., O'Brien, J. G., Gadd, M. G., Ristuccia, J., Wallace, D. L., & Gregory, M. (2005). *Helping traumatized children learn: Supportive school environments for children traumatized by family violence.* Massachusetts Advocates for Children.

Collaborative for Academic, Social, And Emotional Learning (2020). *CASEL's SEL framework.* https://casel.org/casel-sel-framework-11-2020/

Collaborative Learning for Educational Achievement and Resilience (n.d.). *About CLEAR.* Washington State University. https://extension.wsu.edu/clear/about/

Delahooke, M. (2020). *Beyond behaviours: Using brain science and compassion to understand and solve children's behavioural challenges*. Hachette.

Dorado, J., Martinez, M., McArthur, L., & Leibovitz, T. (2016). Healthy environments and response to trauma in schools (HEARTS): A whole-school, multi-level, prevention and intervention program for creating trauma-informed, safe and supportive schools. *School Mental Health, 8,* 163–176. https://doi.org/10.1007/s12310-016-9177-0

Fitzgerald, M. M., & Cohen, J. A. (2012). Trauma-focused cognitive behavior therapy for school psychologists. *Journal of Applied School Psychology, 28*(3), 294-315. https://doi.org/10.1080/15377903.2012.696037

Fondren, K., Lawson, M., Speidel, R., McDonnell, C. G., & Valentino, K. (2020). Buffering the effects of childhood trauma within the school setting: A systematic review of trauma-informed and trauma-responsive interventions among trauma-affected youth. *Children and Youth Services Review, 109,* Article 104691. https://doi.org/10.1016/j.childyouth.2019.104691

Giboney Wall, C. R. (2021). Relationship over reproach: Fostering resilience by embracing a trauma-informed approach to elementary education. *Journal of Aggression, Maltreatment & Trauma, 30*(1), 118-137. https://doi.org/10.1080/10926771.2020.1737292

Giboney Wall, C. R. (2022). What hurt and what helped: How one school's trauma-informed approach provided support during the pandemic. *Journal of Loss & Trauma, 27*(3), 257-270. https://doi.org/10.1080/15325024.2021.1943127

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education, 34,* 755-782. https://doi.org/10.1007/s10212-018-0406-9

Guarino, K. & Chagnon, E. (2018). *Trauma-sensitive schools training package*. National Center on Safe Supportive Learning Environments.

HEARTS (2022). *HEARTS: Program overview.* University of California San Fransisco https://hearts.ucsf.edu/program-overview

Howard, J., L'Estrange, L., & Brown, M. (2022). National guidelines for trauma-aware education in Australia. *Frontiers in Education, 7,* Article 826658. https://doi.org/10.3389/feduc.2022.826658

Ijadi-Maghsoodi, R., Marlotte, L., Garcia, E., Aralis, H., Lester, P., Escudero, P., & Kataoka, S. (2017). Adapting and implementing a school-based resilience-building curriculum among low-income racial and ethnic minority students. *Contemporary School Psychology, 21*(3), 223-239. https://doi.org/10.1007/s40688-017-0134-1

Jaycox, L. H., Langley, A. K., & Hoover, S., (2018). *Cognitive Behavioral Intervention for Trauma in Schools (CBITS), Second Edition*. RAND Corporation. https://doi.org/10.7249/TL272

Joseph, A. A., Wilcox, S. M., Hnilica, R. J., & Hansen, M. C. (2020). Keeping race at the center of school discipline practices and trauma-informed care: An interprofessional framework. *Children & Schools, 42*(3), 161–170. https://doi.org/10.1093/cs/cdaa013

Karyn Purvis Institute of Child Development (2015). Weighted items: Tools for helping children learn to regulate. *TBRI Practice Brief.* http://child.tcu.edu/wp-content/uploads/2015/10/ICD-Weighted-Items-final.pdf

Karyn Purvis Institute of Child Development (n.d.). *Trust-Based Relational Intervention.* https://child.tcu.edu/about-us/tbri/#sthash.mqALkL2G.dpbs

King, C. L., & Scheidegger, T. H. (2018). Trauma responsive school project: Implementation in an urban school setting. *Journal of Professional Counseling: Practice, Theory & Research, 45*(2), 69-81. https://doi.org/10.1080/15566382.2019.1646084

Kinniburgh, K., Blaustein, M., Spinazzola, J. & van der Kolk, B. A. (2005). Attachment, self-regulation and competency: A comprehensive intervention framework for children with complex trauma. *Psychiatric Annals, 35*(5)*,* 424–430. https://doi.org/10.3928/00485713-20050501-08

Langley, A. K., Gonzalez, A., Sugar, C. A., Solis, D., & Jaycox, L. (2015). Bounce back: Effectiveness of an elementary school-based intervention for multicultural children exposed to traumatic events. *Journal of Consulting and Clinical Psychology, 83*(5), 853–865. https://doi.org/10.1037/ccp0000051

MacKillop Institute (n.d.). *ReLATE.* MacKillop Family Services. https://www.mackillopinstitute.org.au/programs/relate/

Martin, K. E., Ford, M., Fitzgerald, K., Falconer, S., Kasten-Lee. M., Egeberg, H., Walker, R., Dobson, M., Lund, S., Gazey, A., Parker, R., Berger, E., & Wheeler, K. (2021). *The Thoughtful Schools Program Guidebook.* The University of Western Australia. https://thoughtfulschools.org.au/the-thoughtful-schools-program-guidebook/

Maynard, B. R., Farina, A., Dell, N. A., & Kelly, M. S. (2019). Effects of trauma-informed approaches in schools: A systematic review. *Campbell Systematic Reviews, 15*(1-2), 1-18. https://doi.org/10.1002/cl2.1018

McConnico, N., Boynton-Jarrett, R., Bailey, C., & Nandi, M. (2016). A framework for trauma-sensitive schools: Infusing trauma-informed practices into early childhood education systems. *Zero to T*hree, 36(5)*,* 36-44. https://eric.ed.gov/?id=EJ1121657

Melz, H., Morrison, C., Ingoldsby, E. Cairone, K. & Mackrain, M. (2019). *Review of trauma-informed initiatives at the systems level. Trauma-informed approaches: Connecting research, policy, and practice to build resilience in children and families*. James Bell Associates. https://aspe.hhs.gov/sites/default/files/private/pdf/262051/TI_Approaches_Research_Review.pdf

Mendelson, T., Tandon, S. D., O'Brennan, L., Leaf, P. J., & Ialongo, N. S. (2015). Brief report: Moving prevention into schools: The impact of a trauma-informed school-based intervention. *Journal of Adolescence, 43*(1), 142–147. https://doi.org/10.1016/j.adolescence.2015.05.017

Miller, J., & Berger, E. (2020). A review of school trauma-informed practice for Aboriginal and Torres Strait Islander children and youth. *Educational and Developmental Psychologist, 37*(1), 39-46. https://doi.org/10.1017/edp.2020.2

Missouri Department of Elementary and Secondary Education (2019). *The Missouri Model for Trauma-Informed Schools*. https://dmh.mo.gov/media/pdf/missouri-model-trauma-informed-schools

National Centre on Safe Supportive Learning Environment (n.d.). *Trauma-Sensitive Schools Training Package.* https://safesupportivelearning.ed.gov/trauma-sensitive-schools-training-package

National Child Traumatic Stress Network (2017a). *Creating, supporting, and sustaining trauma-informed schools: A system framework.* National Center for Child Traumatic Stress. https://www.nctsn.org/resources/creating-supporting-and-sustaining-trauma-informed-schools-system-framework

National Child Traumatic Stress Network (2017b). *Addressing race and trauma in the classroom: A resource for educators.* National Center for Child Traumatic Stress. https://www.nctsn.org/resources/addressing-race-and-trauma-classroom-resource-educators

Norrish, J., & Brunzell, T. (2021). *Creating trauma-informed, strengths-based classrooms: Teacher strategies for nurturing students' healing, growth, and learning*. Jessica Kingsley Publishers.

Orapallo A., Grant B. J., & Baker, C. N. (2021). Examining the effectiveness of Trauma Smart® training: Staff satisfaction, knowledge, and attitudes. *Psychological Trauma, 13*(8), 891-898. https://doi.org/10.1037/tra0001075

Osher, D., Guarino, K., Jones, W., & Schanfield, M. (2021). *Trauma-sensitive schools and social and emotional learning: An integration.* The Pennsylvania State University. https://www.air.org/resource/brief/trauma-sensitive-schools-and-social-and-emotional-learning-integration

Perry, B. (n.d.). *The Neurosequential Model in Education (NME).* The Neurosequential Network. https://www.neurosequential.com/nme

Perry, D. L., & Daniels, M. L. (2016). Implementing trauma-informed practices in the school setting: A pilot study. *School Mental Health, 8*(1), 177-188. https://doi.org/10.1007/s12310-016-9182-3

Purvis, K. B., Cross, D. R., Dansereau, D. F., & Parris, S. R. (2013). Trust-based relational intervention (TBRI®): A systematic approach to complex developmental trauma. *Child & Youth Services, 34*(4), 360-386. https://doi.org/10.1080/0145935X.2013.859906

Rentenbach, B., Prislovsky, L., & Gabriel, R. (2017). Valuing differences: Neurodiversity in the classroom. *Phi Delta Kappan, 98*(8), 59–63. https://doi.org/10.1177/0031721717708297

Rishel, C. W., Tabone, J. K., Hartnett, H. P., & Szafran, K. F. (2019). Trauma-informed elementary schools: Evaluation of school-based early intervention for young children, *Children & Schools, 41*(4) 239–248. http://dx.doi.org/10.1093/cs/cdz017

Sansone, R. A., Butler, M., Dakroub, H., & Pole, M. (2006). The relationship between number of types of childhood trauma, number of psychophysiological disorders, and length of medical disability. *Traumatology, 12*(2), Article 143147. https://doi.org/10.1177/1534765606294559

Siegel, D. J, & Payne Bryson, T. (2011). *The whole brain child: 12 revolutionary strategies to nurture your child's development mind.* Scribe.

Stokes, H., & Brunzell, T. (2019). Professional learning in trauma-informed positive education: Moving school communities from trauma affected to trauma aware. *School Leadership Review*, *14*(2), 1-13. https://scholarworks.sfasu.edu/slr/vol14/iss2/6

Stratford, B., Cook, E., Hanneke, R., Katz, E., Seok, D., Steed, H., Fulks, E., Lessans, A., & Temkin, D. (2020). A scoping review of school-based efforts to support students who have experienced trauma. *School Mental Health, 12*(3), 442-477. https://doi.org/10.1007/s12310-020-09368-9

Thomas, M. S., Crosby, S., & Vanderhaar, J. (2019). Trauma-informed practices in schools across two decades: An interdisciplinary review of research. *Review of Research in Education, 43*(1), 422-452. https://doi.org/10.3102/0091732X18821123

Thoughtful Schools Program (n.d.). *The Thoughtful Schools Program*. University of Western Australia School of Population and Global Health. https://thoughtfulschools.org.au/

Trauma and Learning Policy Initiative (n.d.) *About the TLPI: History and background.* Massachusetts Advocates for Children and Harvard Law School. https://traumasensitiveschools.org/about-tlpi/

Trauma Smart (n.d.) *Trauma Smart: Our model.* Saint Luke's Hospital Crittenton Children's Centre. https://traumasmart.org/our-model/

Vital Village (n.d.). *STRIVE: Supportive Trauma Interventions for Educators.* Boston Medical Center & Boston University. https://www.vitalvillage.org/projects/innovations-in-education/supportive-trauma-interventions-for-educators

Williams, A., Jones, C., Arcelus, J., Townsend, E., Lazaridou, A., & Michail, M. (2021). A systematic review and meta-analysis of victimisation and mental health prevalence among LGBTQ+ young people with experiences of self-harm and suicide. *Plos One, 16*(1), Article e0245268. https://doi.org/10.1371/journal.pone.0245268

Wolpow, R., Johnson, M. M., Hertel, R., & Kincaid, S. O. (2016). *The heart of learning and teaching: Compassion, resiliency, and academic success. (3rd ed.).* Office of the Superintendent of Public Instruction. https://www.k12.wa.us/sites/default/files/public/compassionateschools/pubdocs/theheartoflearningandteaching.pdf

Yohannan, J., & Carlson, J. S. (2018). A systematic review of school-based interventions and their outcomes for youth exposed to traumatic events. *Psychology in the Schools, 56(*3), 447-464. https://doi.org/10.1002/pits.22202

Young-Southward, G., Eaton, C., O'Connor, R., & Minnis, H. (2020). Investigating the causal relationship between maltreatment and cognition in children: A systematic review. *Child Abuse & Neglect, 107,* Article 104603. https://doi.org/10.1016/j.chiabu.2020.104603

Zakszeski, B. N., Ventresco, N. E., & Jaffe, A. R. (2017). Promoting resilience through trauma-focused practices: A critical review of school-based implementation. *School Mental Health, 9(*4), 310-321. https://doi.org/10.1007/s12310-017-9228-1